Water Source Heat Pump

Models: M5WSS 007 AR
M5WSS 010 AR
M5WSS 015 AR
M5WSS 016 AR
M5WSS 020 AR
M5WSS 025 AR
M5WSS 030 AR
M5WSS 040 AR
M5WSS 050 AR
M5WSS 060 AR
M5WST 040/050/060 AR

McQuay Air Conditioning

Engineered for flexibility and performance.™

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This manual supersede M5WSS - 2005

Note: Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations, and experienced with this type of equipment.

Caution: Sharp edges and coil surfaces are a potential injury hazard. Avoid contact with them.

Warning: Moving machinery and electrical power hazards. May cause severe personal injury or death. Disconnect and lock off power before servicing equipment.

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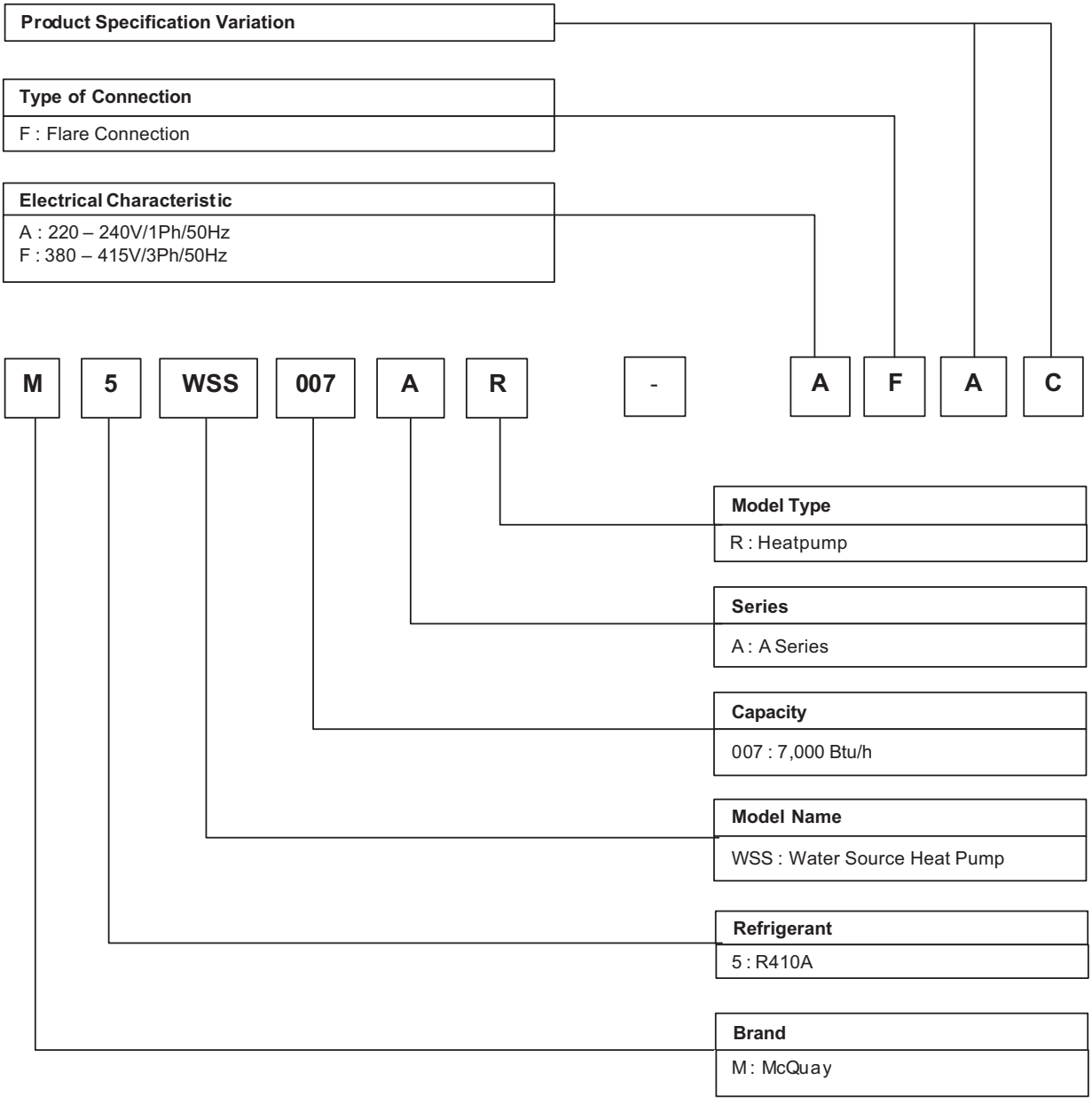
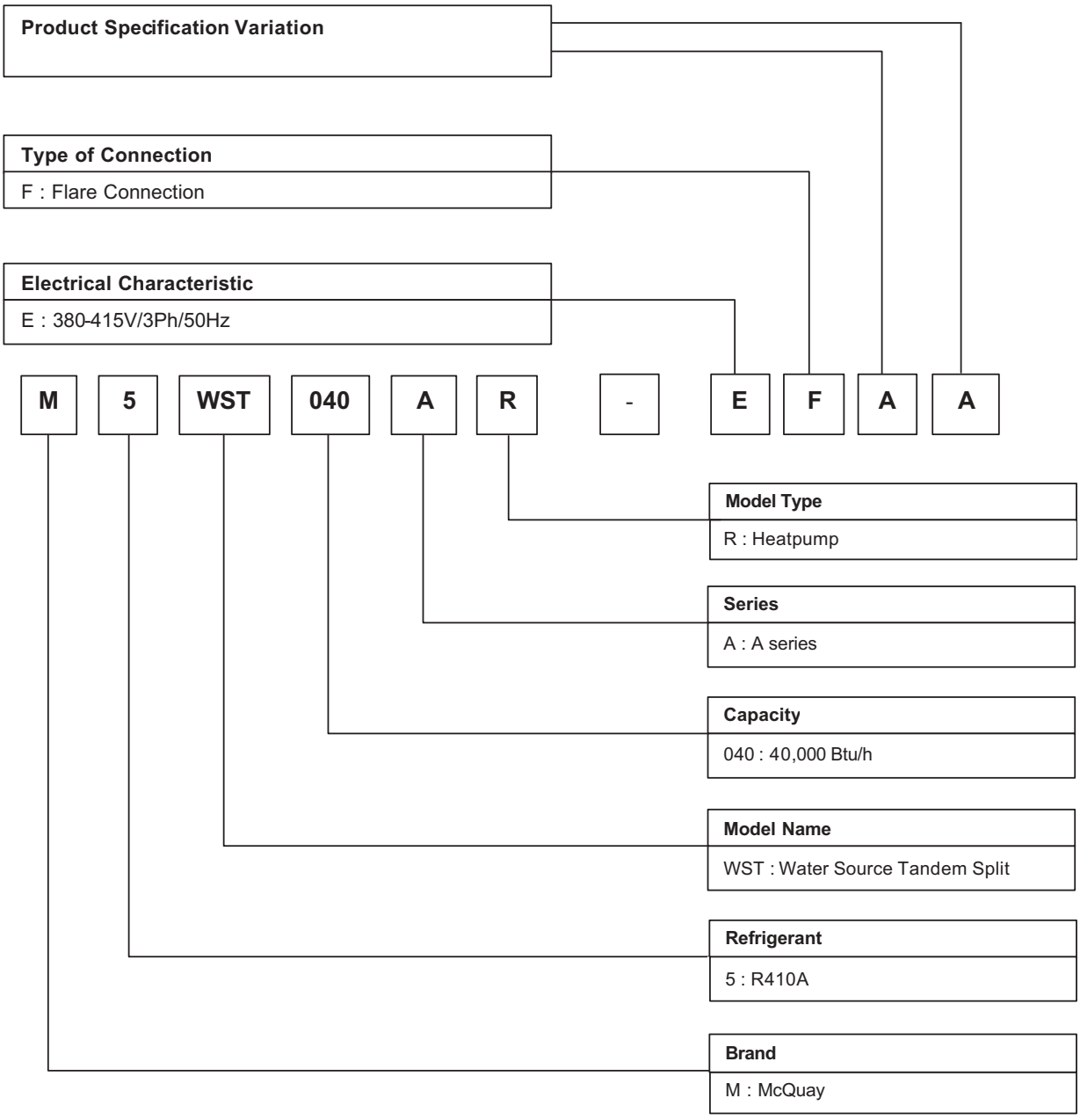
Bulletin illustrations cover the general appearance of McQuay International products at the time of publication.

We reserve the right to make change in design and construction at any time without notice.

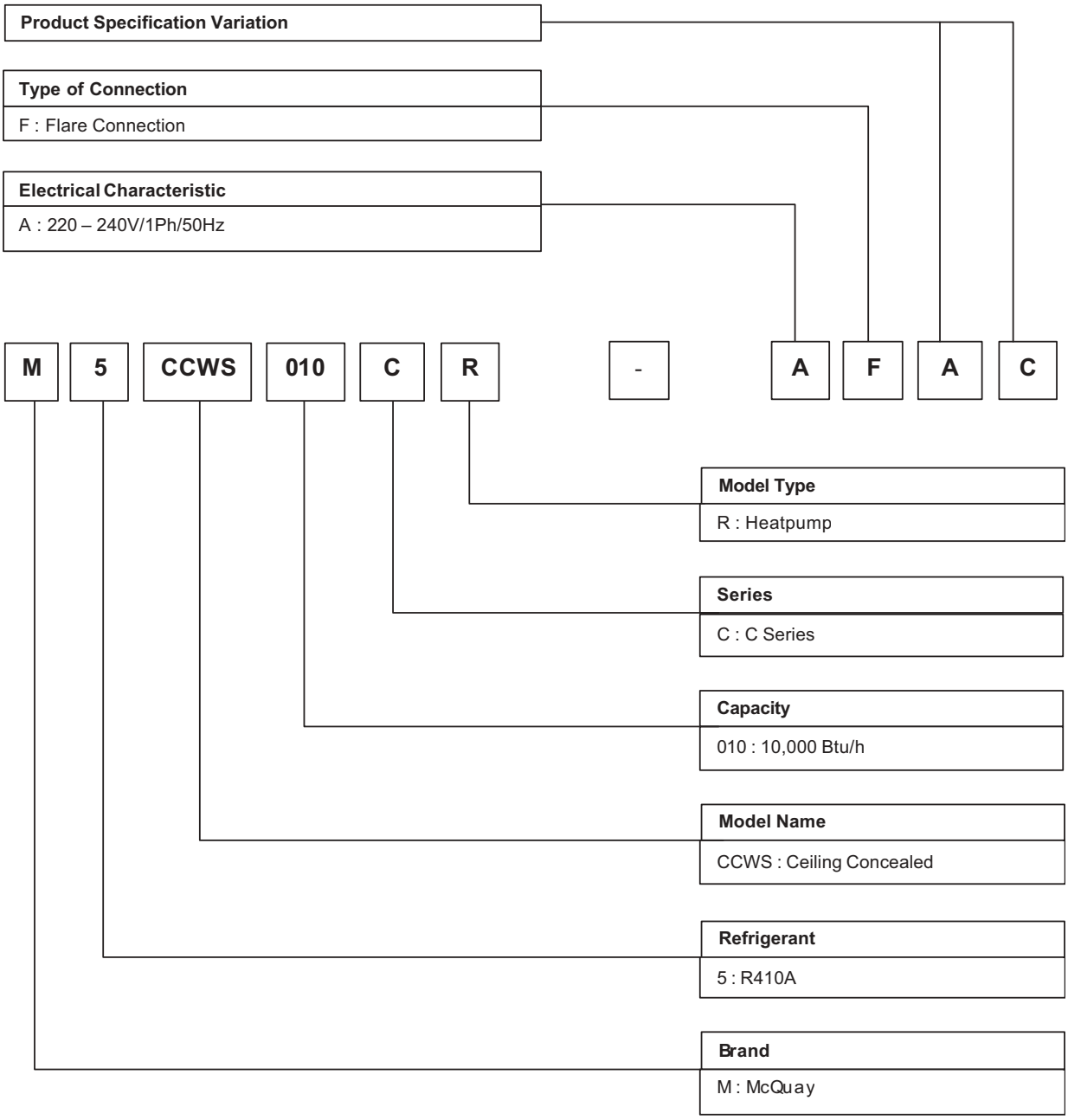
Nomenclature

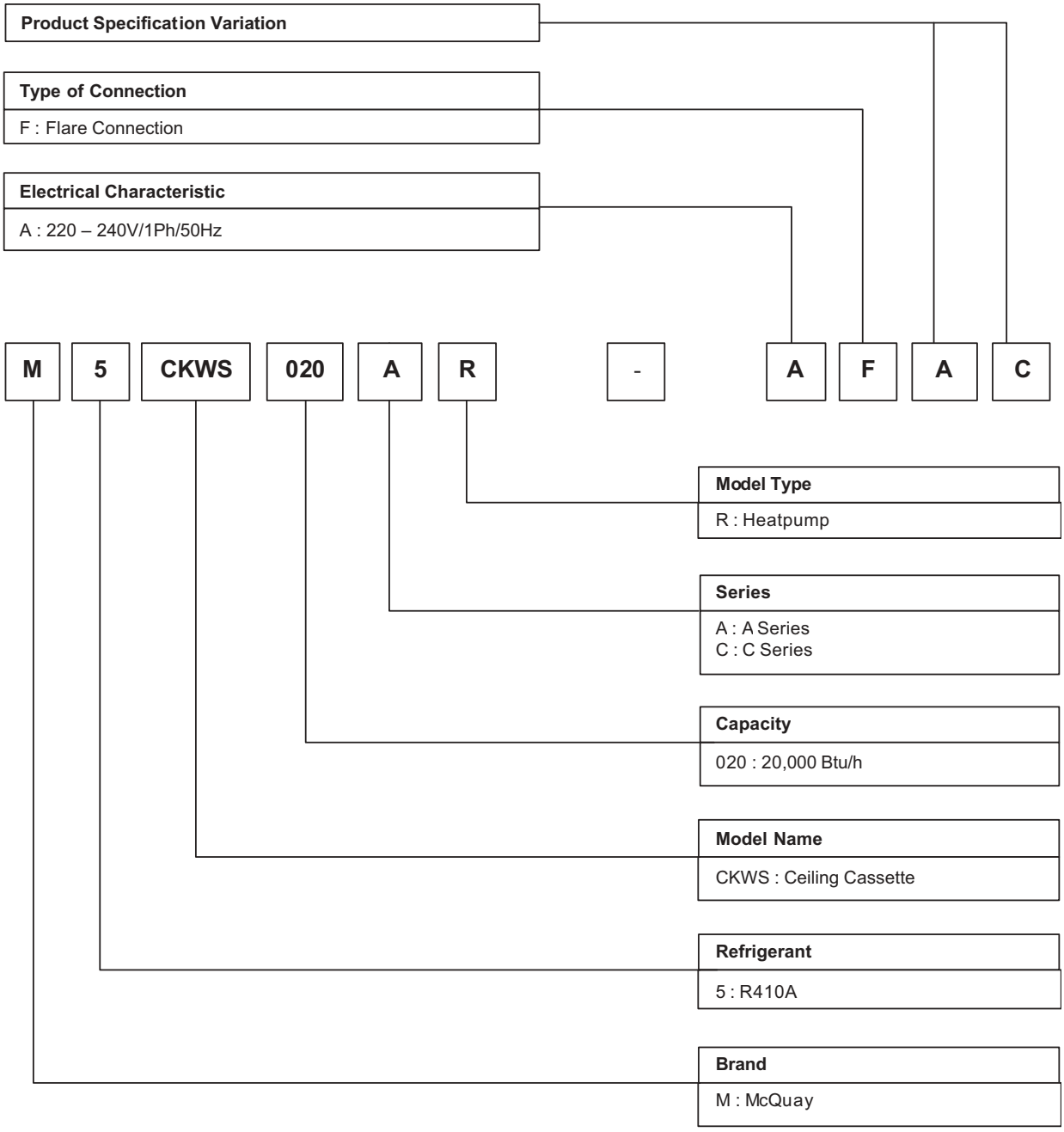
Outdoor

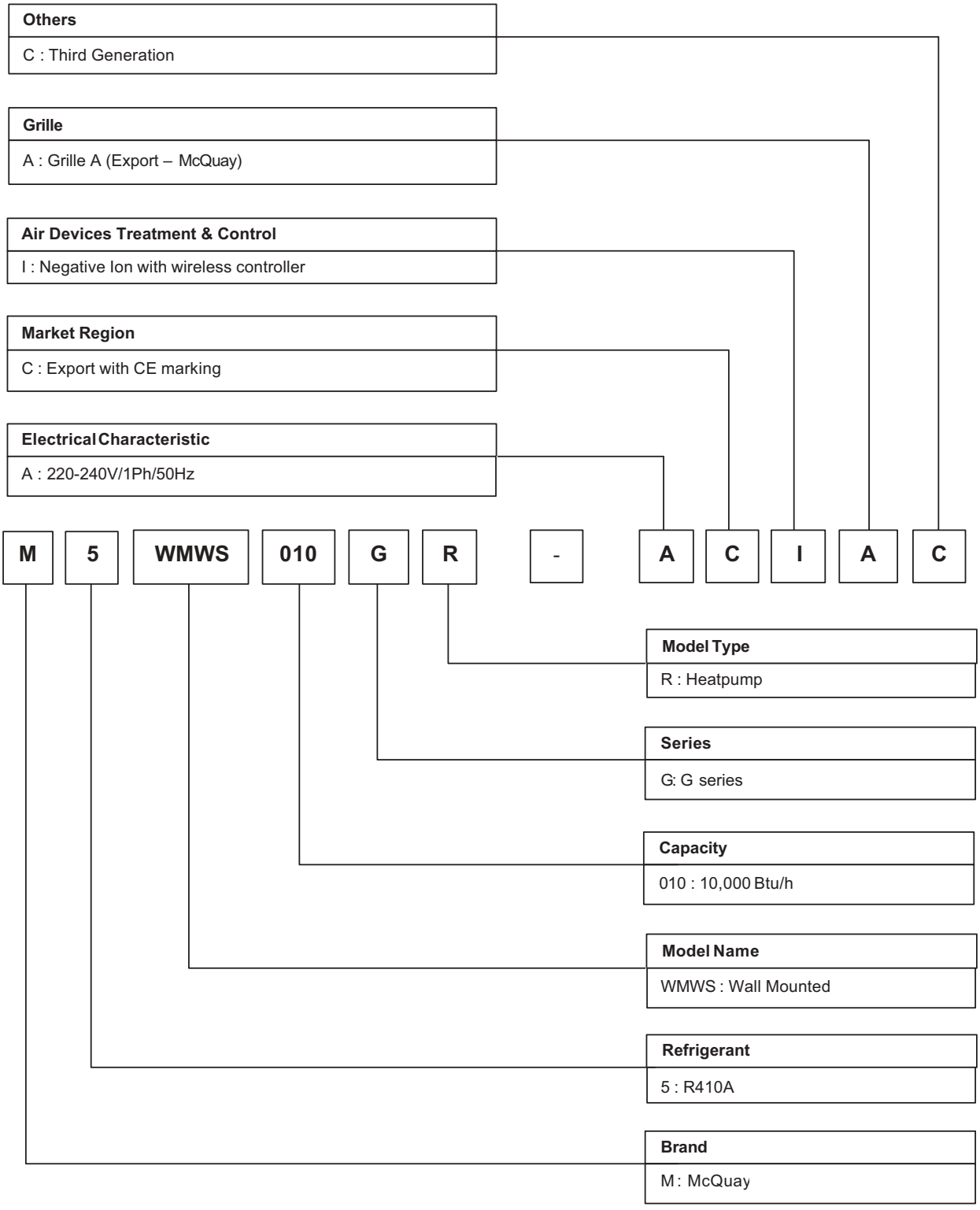



Product Specification Variation
Type of Connection
F : Flare Connection
Electrical Characteristic
E : 380-415V/3Ph/50Hz
M
5
WST
040
A
R
-
E
F
A
A
Model Type
R : Heatpump
Series
A : A series
Capacity
040 : 40,000 Btu/h
Model Name
WST : Water Source Tandem Split
Refrigerant
5 : R410A
Brand
M : McQuay

Indoor


Product Specification Variation
Type of Connection
F : Flare Connection
Electrical Characteristic
A : 220 – 240V/1Ph/50Hz
M
5
CCWS
010
C
R
-
A
F
A
C
Model Type
R : Heatpump
Series
C : C Series
Capacity
010 : 10,000 Btu/h
Model Name
CCWS : Ceiling Concealed
Refrigerant
5 : R410A
Brand
M : McQuay


Product Specification Variation
Type of Connection
F : Flare Connection
Electrical Characteristic
A : 220 – 240V/1Ph/50Hz
M
5
CKWS
020
A
R
-
A
F
A
C
Model Type
R : Heatpump
Series
A : A Series
C : C Series
Capacity
020 : 20,000 Btu/h
Model Name
CKWS : Ceiling Cassette
Refrigerant
5 : R410A
Brand
M : McQuay


Others
C : Third Generation
Grille
A : Grille A (Export – McQuay)
Air Devices Treatment & Control
I : Negative Ion with wireless controller
Market Region
C : Export with CE marking
Electrical Characteristic
A : 220-240V/1Ph/50Hz
M
5
WMWS
010
G
R
-
A
C
I
A
C
Model Type
R : Heatpump
Series
G: G series
Capacity
010 : 10,000 Btu/h
Model Name
WMWS : Wall Mounted
Refrigerant
5 : R410A
Brand
M : McQuay

Product Line Up

Outdoor unit
M5WSS Product Line Up (R410A)

		CLASSIFICATION												REMARK	
		Control		Marking	Refrigerant Control		Compressor		Heat Exchanger				Base Pan			
5WSS	NONMENCALTURE	W/out Contactor & Relay	With Contactor & Relay	CE Mark	Cap. Tube	TXV	Rotary	Scroll	1 Tube in Tube	2 Tube in Tube	3 Tube in Tube	4 Tube in Tube	Single	Double Isolation	Replace	Compressor Model
007AR	AFAC		X	X	X		X		X					X	AFAB	5RS080DBA
010AR	AFAC		X	X	X		X		X					X	AFAB	5PS102DAD
015AR	AFAC		X	X	X		X		X					X	AFAB	5KS132DAC
016AR	AFAC		X	X	X		X		X					X	AFAB	5KS150DBJ05
020AR	AFAC		X	X	X		X			X				X	AFAB	5KS205DAD05
025AR	AFAC		X	X	X		X			X				X	AFAB	5KS225DAH05
030AR	AFAB	X		X		X	X			X				X	AFAA	5JS315DAH04
040AR	FFAB		X	X		X		X			X			X	FFAA	ZP41K3E-TFD-596
050AR	FFAB		X	X		X		X				X		X	FFAA	ZP54K3E-TFD-525
060AR	FFAB		X	X		X		X				X		X	FFAA	ZP57K3E-TFD-525

M5WST Product Line Up (R410A)

		CLASSIFICATION						Remark
		Marking	Refrigerant Control		Compressor			
5WST	NONMENCALTURE	CE Mark	Cap. Tube	TXV	Rotary	Scroll	3Ø Supply, 1Ø Comp	Compressor Model
040AR	EFAA	X		X	X		X	(5KS225DAJ01) x 2
050AR	EFAA	X		X	X		X	(5JS290DAB01) x 2
060AR	EFAA	X		X	X		X	(5JS290DAB01 + 5JS315DAJ01)

Indoor unit

M5CCWS Product Line Up (R410A)

		CLASSIFICATION							REMARK
5CCWS	NONMENCALTURE	Control		Handset	Marking	Refrigerant Control	Saranet Air Filter	Control Box at Piping Side	Replace
		WSV1 PCB	LWS2	SLM3	CE Mark	W/out Cap. Tube			
010CR	AFAC		X	X	X	X	X	X	AFAA
015CR	AFAC		X	X	X	X	X	X	AFAA
020CR	AFAC		X	X	X	X	X	X	AFAA
025CR	AFAC		X	X	X	X	X	X	AFAA
030CR	AFAC		X	X	X	X	X	X	AFAA
040CR	AFAC		X	X	X	X	X	X	AFAA
050CR	AFAC		X	X	X	X	X	X	AFAA
060CR	AFAC		X	X	X	X	X	X	AFAA

M5CKWS Product Line Up (R410A)

		CLASSIFICATION				
5CKWS	NONMENCALTURE	Control		Marking	Refrigerant Control	Auto Air Swing
		LWS 2.0	U1.4 PCB	CE Mark	W/out Cap. Tube	
020AR	AFAC	X		X	X	X
025AR	AFAC	X		X	X	X
030AR	AFAC	X		X	X	X
040AR	AFAC	X		X	X	X
050AR	AFAC	X		X	X	X
010CR	AFAC	X		X	X	X
015CR	AFAC	X		X	X	X
020CR	AFAC	X		X	X	X

M5WMWS Product Line Up (R410A)

		CLASSIFICATION									REMARK
5WMWS	NONMENCALTURE	Control		Handset	Marking	Refrigerant Control	Filtration			Grille A	Replace
		LWS1	LWSWM2	G11	CE Mark	W/out Cap. Tube	Ionizer	HAF	TiO2		
010GR	ACIAC		X	X	X	X	X	X	X	X	ACIAA
015GR	ACIAC		X	X	X	X	X	X	X	X	ACIAA
020GR	ACIAC		X	X	X	X	X	X	X	X	ACIAA
025GR	ACIAC		X	X	X	X	X	X	X	X	ACIAA

Features

McQuay Water Source Heat Pump (M5WSS) system is one of the most efficient and high performance systems that can move energy in a building from where it is not needed to where it is needed. It is perfect for buildings that required heating and cooling operation at different zones. With this, different areas or zoned can be heated or cooled at different temperature simultaneously. The heat is rejected and added in a water loop using a cooling tower and a boiler. The units are easy to install, operate and maintain.

Energy Saving

M5WSS and M5WST are the most efficient systems available for heating and cooling. It will be very cost effective for seasonal operation and can provide greater indoor comfort to the occupants. With the lower power consumption, the operation and maintenance cost is very much lower than the conventional air-conditioning systems.

Environmental Friendly

Refrigerant R410A is used in the M5WSS and M5WST units. It is a non-ozone depleting hydro-fluorocarbon (HFC) new refrigerant that has a higher efficiency and has no schedule phase out date. It is non-flammable and low toxic refrigerant and is rated as A1 by the ASHARE refrigerant classifications.

Easy Installation and Improve Aesthetics

The unit has a great flexibility for installation. With a compact design and a low height profile, it can easily fit the required space layout and allow maximum use of space. The units are concealed from the occupant views as the units are installed above the ceiling and are sheltered inside the building. The units are painted as well. It will improve the aesthetics value of a particular building and eliminates the probability of vandalism and injury.

Quiet Operation

M5WSS and M5WST are developed with double isolation panel (Upper and Lower Panel). Such design has promised the extremely low vibration on the unit itself. Moreover, the heavy gauge cabinet construction together with vibration isolated hanger brackets also minimizes noise and vibration effectively.

Easy Servicing and Maintenance

The two side removable service panels provide easy access to the compressor as well as the heat exchanger.

Fluid-to-Refrigerant Coil

The tube-in-tube coaxial heat exchanger applied in M5WSS and M5WST unit is designed for maximum heat transfer at normal and low water flow rate with minimum pressure drop. The inside refrigerant tube is deeply fluted to enhance heat transfer and minimize fouling. This coaxial heat exchanger is tested perfectly to 1600 psig on the water side and refrigerant side.

Compressor

M5WSS and M5WST units are designed around the most advanced compressors in the industry, which can deliver a wide range of selection for R410A non-CFC refrigerants. The rotary compressor (for sizes 2.37kW to 8.94kW) and scroll compressor (for sizes 11.58kW to 15.77kW) give a quite and reliable performance over a wide operating temperature range.

Thermal Expansion Valve (TXV)

M5WSS and M5WST units (for sizes 8.94kW to 15.77kW) are included with a thermal expansion valve for refrigerant metering. It can precisely control the exact amount of refrigerant flow through the system to deliver rated cooling and heating capacity.

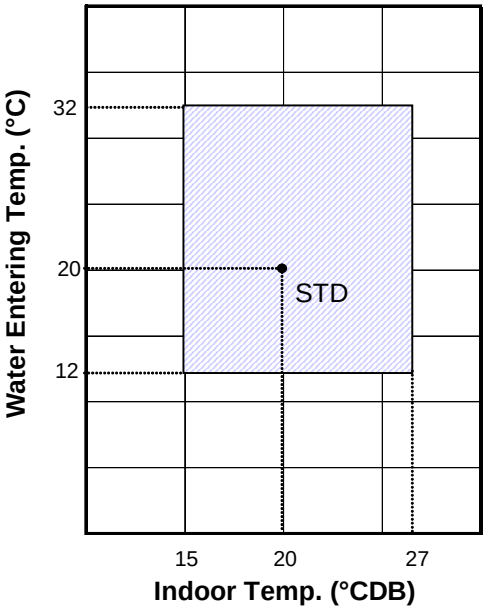
Application Information

Operating Range

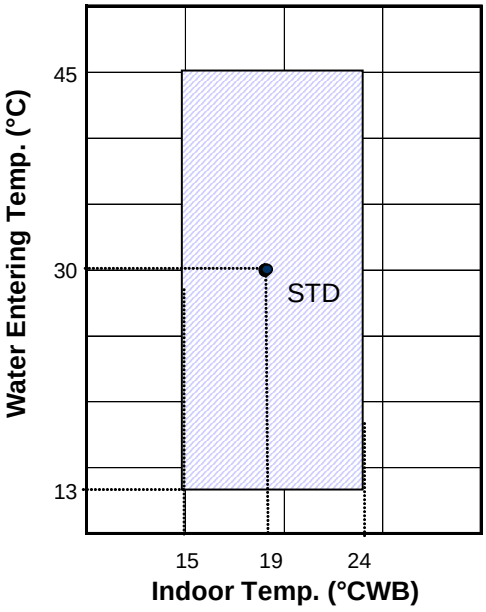
Ensure the operating temperature is in allowable range.

Heat Pump

Heating

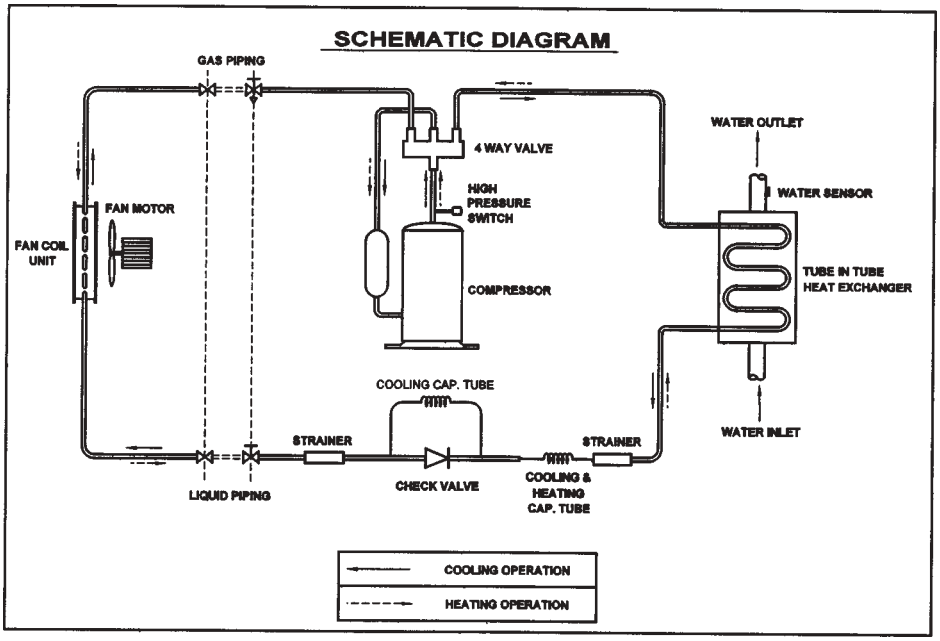


Cooling

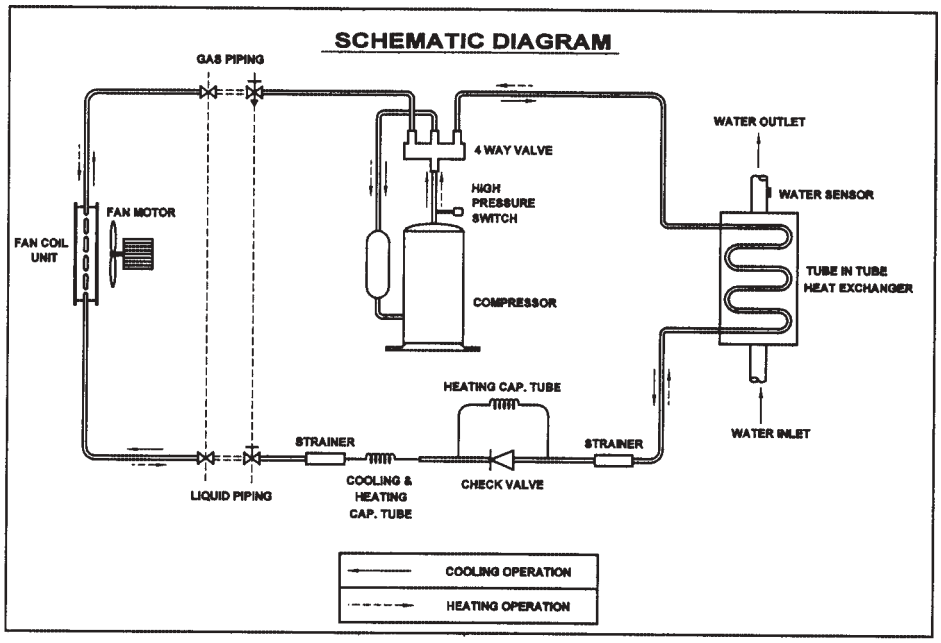


Refrigerant Circuit Diagrams

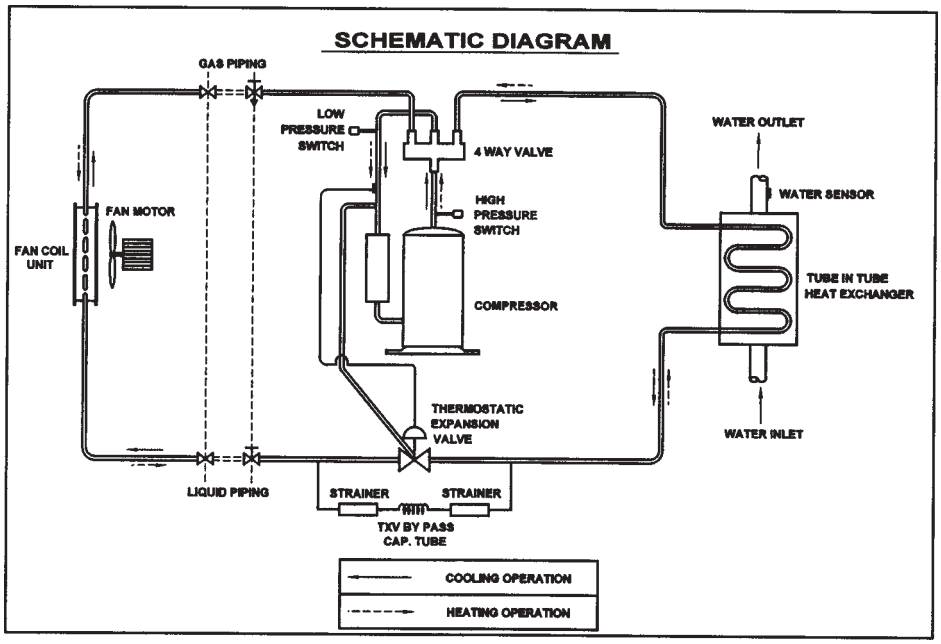
Model : M5WSS 007/ 010/ 016/ 020 / 025 AR



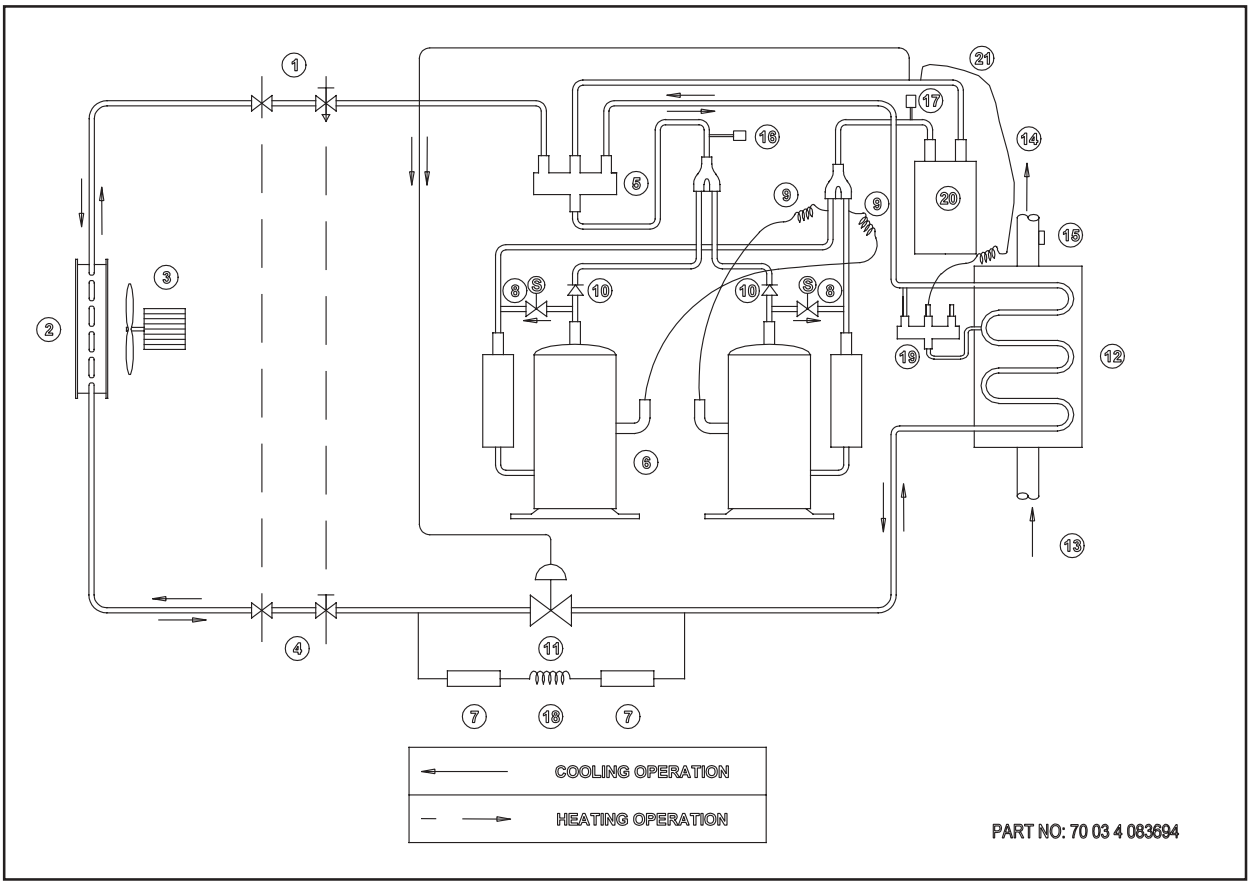
Model : M5WSS 015AR



Model : M5WSS 030/ 040/ 050/ 060AR



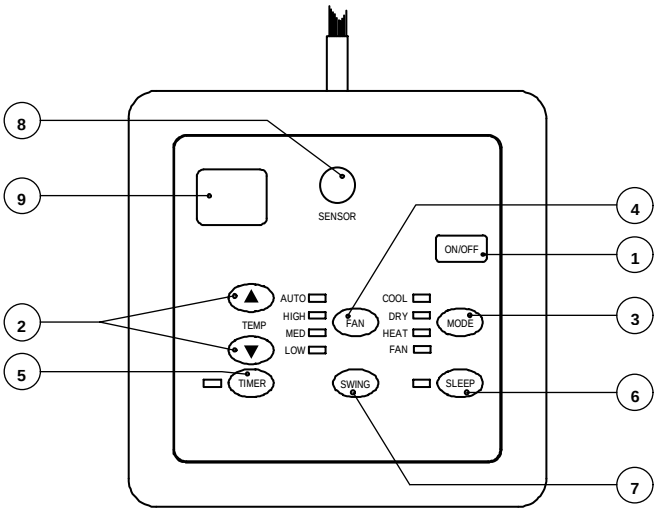
Model : M5WST 040/050/060AR



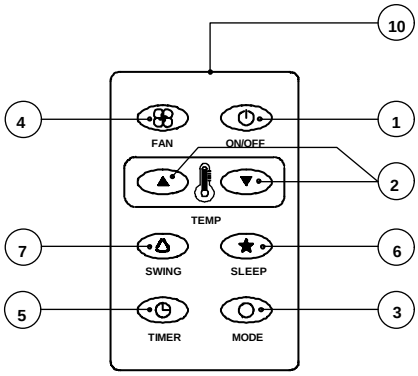
NOTE :

1. GAS PIPING	12. TUBE IN TUBE HEAT EXCHANGER
2. FAN COIL UNIT	13. WATER INLET
3. FAN MOTOR	14. WATER OUTLET
4. LIQUID PIPING	15. WATER SENSOR
5. 4 WAY VALVE	16.HIGH PRESSURE SWITCH
6. COMPRESSOR	17. LOW PRESSURE SWITCH
7. STRAINER	18. TXV BY PASS CAP. TUBE
8. SOLENOID VALVE	19. 4WV (FUNCTIONING AS A BIFLOW SOLENOID VALVE)
9. OIL RETURN CAP. TUBE	20. ACCUMULATOR
10. CHECK VALVE	21. SUCTION CAP. TUBE
11. THERMOSTATIC EXPANSION VALVE	

Controllers



SLM



AC-5300(OPTIONAL)

1. "ON/OFF" switch
- Press to start the air conditioner unit.
- Press again to stop the unit.

2. Temperature setting
- Set the desired room temperature.
- Press button to increase or decrease the set temperature. Setting range are between 16°C to 30°C (60°F to 80°F).

3. Operation Modes
- Press the "mode" button for select the type of operating mode.
  - Cooling Only :
    COOL, DRY, FAN
  - Heat Pump :
    AUTO, COOL, DRY, HEAT, FAN
    (AUTO mode is represented by both COOL and HEAT LED light on)

4. Fan Speed selection
- Press the button until the desired fan speed is achieved.

5. Timer
- Press the set button to select the switch timer of the air conditioner unit (the setting range is between 1 to 15 hours).

6. "Sleep" mode
- Press button to activate the sleep function can only be activated under "cool" or heating mode operation.
  activated under "cool" mode operation, the set temperature will increase 0.5°C after 30 minutes, 1°C after 1 hour and 2°C after 2 hours. If it is actiaved under "HEAT" mode operation, the set temperature will be descreased 0.5°C after 30 minutes, 1°C after 1 hour and 2°C after 2 hours.

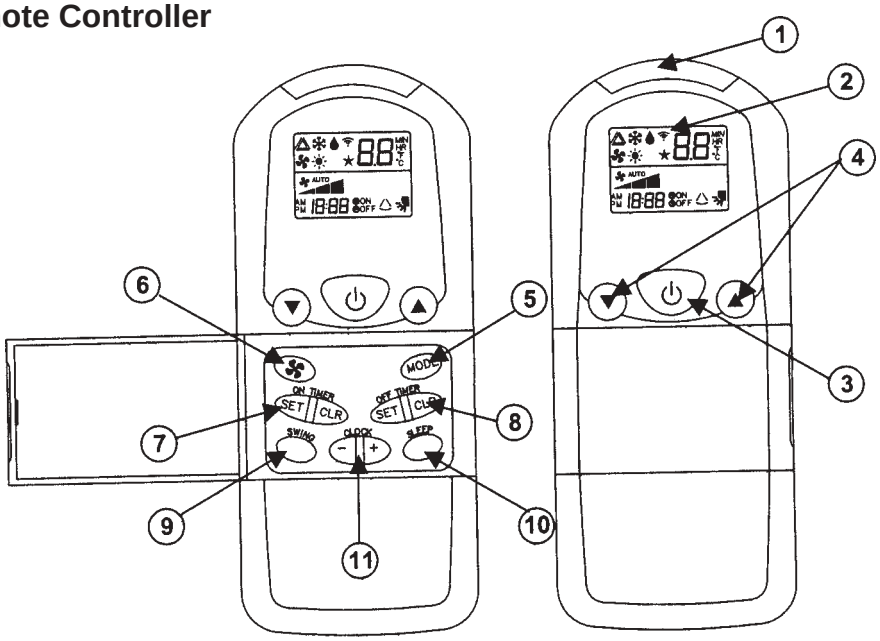
7. Air Swing
- Press button to activate the automatic air swing function.

8. Sensor
- Infra red sensor to receive signals from wireless controller.

9. LED Display
- To display the set temperature (in °C) and timer delay setting (in hours).

10. Transmission source
- To transmit signals to the air conditioner.

G7 Remote Controller



1. Transmission source
- The source where the signal will be transmitted.

2. Signal Transmission indication
- Blink to confirm the last setting has been send to the unit.

3. On/Off Button
- Press once to start the air conditioner.
- Press again to stop the unit.

4. Temperature setting
- To set the desired room temperature, press the button to increase or decrease the set temperature.
- The temperature setting range is from 16 C to 30 C (Optional setting 18 C to 30 C).
- Press both buttons simultaneously to toggle the temperature setting between C and F.

5. Operation mode
- Press the MODE button to select the type of operating mode.
- For cooling only unit, the available modes are : COOL, DRY & FAN.
- For heat pump unit, the available modes are : AUTO, COOL, DRY, FAN & HEAT.

6. Fan speed selection
- Press the button until the desired fan speed is achieved.

7. ON timer setting
- Press the SET button will activate the on timer function.
- Set the desired on time by pressing the SET button continuously. If the timer is set to 7.30am, the air conditioner will turn on at 7.30am sharp.
- Press the CLR button to cancel the on timer setting.

8. OFF timer setting
- Press the SET button will activate the off timer function.
- Set the desired off time by pressing the SET button continuously.
- Press the CLR button to cancel the off timer setting.

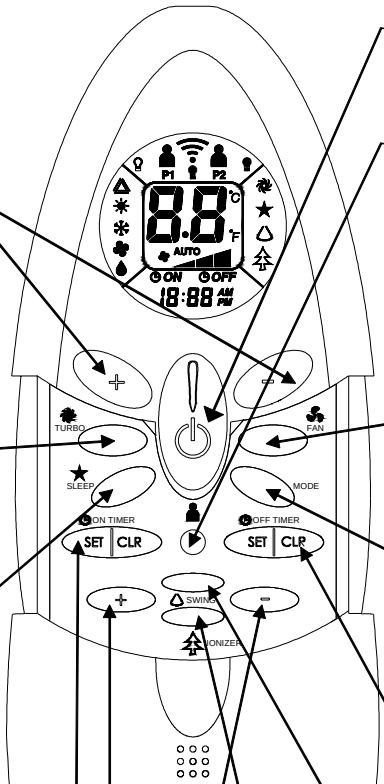
9. Automatic air swing (Optional)
- Press the SWING button to activate the automatic air swing function.
- To distribute the air to a specific direction, press the SWING button and wait until the louver move to the desired direction and press the button once again.

10. Sleep mode setting
- Press the button to activate sleep mode. This function is available under COOL, HEAT & AUTO mode.
- When it is activated in COOL mode, the set temperature will be increased 0.5 C after 30mins, 1 C after 1 hour and 2 C after 2 hours.
- When it is activated in HEAT mode, the set temperature will be decreased 1 C after 30mins, 2 C after 1 hour and 3 C after 2 hours.

11. Clock time setting
- Press button + or to increase or decrease the clock time.

12. Turbo function (optional only applicable to inverter unit)
- Press button for fast cooling or heating operation.
- The temperature will be increased internally if it is in the HEAT mode, decreased if in COOL or DRY mode. Fan speed will be increased if it is not at maximum speed.
- The temperature & fan speed will resume to user setting if the button is pressed again or after 20mins.
- Available under HEAT, COOL & DRY modes only.

G11 Remote Controller



Temperature Setting

- To set the desired room temperature, press the button to increase or decrease the set temperature.
- The temperature setting range is from 16°C to 30°C
- Press both buttons simultaneously to toggle the temperature setting between °C and °F

Turbo Mode

- Press the TURBO button to achieve the required set temperature in a short time.

Sleep Mode

- Press the button to activate sleep mode. This function is available under COOL, HEAT & AUTO mode.
- When it is activated in COOL mode, the set temperature will be increased 0.5°C after 30mins, 1°C after 1 hour and 2°C after 2 hours.
- When it is activated in HEAT mode, the set temperature will be decreased 1°C after 30mins, 2°C after 1 hour and 3°C after 2 hours.

ON Timer Setting

- Press the SET button will activate the off timer function.
- Set the desired on time by pressing the SET button continuously.
- Press the CLR button to cancel the off timer setting

Clock Time Setting

- Press button + or – to increase or decrease the clock time.

On/Off Button

- Press Once to start the air conditioner
- Press again to stop the unit

Personalised Setting

- Press and hold the button for 3s to initiate personalized setting.
- Set the individual setting e.g. MODE, SET TEMP or FAN SPEED and leave for 4s to save
- 2 groups of settings are allowed to stored in the handset

Fan Speed Selection

- Press the button until the desired fan speed is achieved.

Operating Mode

- Press the MODE button to select the type of operating mode.
- For Cooling only unit, the available modes are: COOL, DRY & FAN.
- For Heatpump unit, the available modes are: AUTO, COOL, DRY, FAN & HEAT.

OFF Timer Setting

- Press the SET button will activate the off timer function.
- Set the desired off time by pressing the SET button continuously.
- Press the CLR button to cancel the off timer setting

Automatic Air Awing

- Press the SWING button to activate the automatic air swing function.
- To distribute the air to a specific direction, press the SWING button and wait until the louver move to the desired direction and press the button once again.

Ionizer

- Press the button to activate the negative Ion function, which will refresh the indoor air effectively.

Operating State and Fault Table

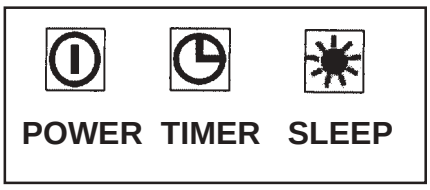
Ceiling Concealed Fan Coil Unit
Wired Remote Control

Heatpump Model

Error Code at 7 Segment Display	Operation / Faulty Indication
Blink E1	Room sensor contact loose / short
Blink E2	Indoor coil sensor contact loose / short
Blink E3	Outdoor coil sensor contact loose / short
Blink E4	Compressor overload
Blink E5	Gas leak
Blink E6	N/A
Blink Heat LED	Outdoor defrost (for Heatpump only)

Ceiling Cassette Fan Coil unit
Wireless Remote Control

Heatpump Model
LED Indicator Light Display



POWER	TIMER	SLEEP	HEAT	Operation / Faulty Indication
○				Cool Mode
○	○			Timer On
○		○		Sleep Mode On
○			○	Heat Mode
○			◑	Auto Mode - Cool
○			○	Auto Mode - Heat
◑ Continuously			○ / ●	Frost Prevention Mode
◑ Once every 3 sec				Compressor Overload
◑◑ Twice every 3 sec				Pump Fault
◑◑◑ 3 times every 3 sec				Gas Leak
◑◑◑◑ 4 times every 3 sec				Room / Indoor / Outdoor Coil Sensor Contact Loose / Short

○ ON ○ / ● ON or OFF ◑ BLINKING

Wired Remote Control
Cooling / Heatpump Model

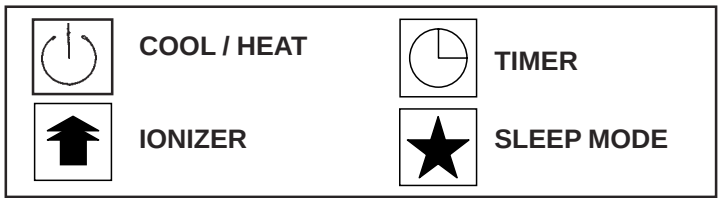
Error Code at 7 Segment Display	Operation / Faulty Indication
Blink E1	Room sensor contact loose / short
Blink E2	Indoor coil sensor contact loose / short
Blink E3	Outdoor coil sensor contact loose / short
Blink E4	Compressor overload
Blink E5	Gas leak
Blink E6	Pump faulty
Blink Heat LED	Outdoor defrost (for Heatpump only)

Water Pump
The water pump will on if compressor is on during cooling cycle. The pump will remain on for at least 5 minutes after the compressor is off.
During mode change from cooling to non-cooling mode, the pump will on for minimum 5 minutes. During defrost cycle, the pump will on and will on for another 5 minutes once the defrost cycle is terminated.

Water Level Switch
This normally close switch is to detect faults in water pump system. It will confirm for 30 seconds for switch open and 60 seconds for switch close.
Once switch is confirmed open, it will force compressor to cut off. If the switch is closed within 5 minutes, the compressor is allowed to cut in. If the switch does not close for more than 5 minutes, the system will warn user regarding the fault, the compressor is not allowed to cut in. If the switch is confirmed opened twice within 30 minutes, the system assumes there are faults.

Wall Mounted Fan Coil Unit

Wireless Remote Control

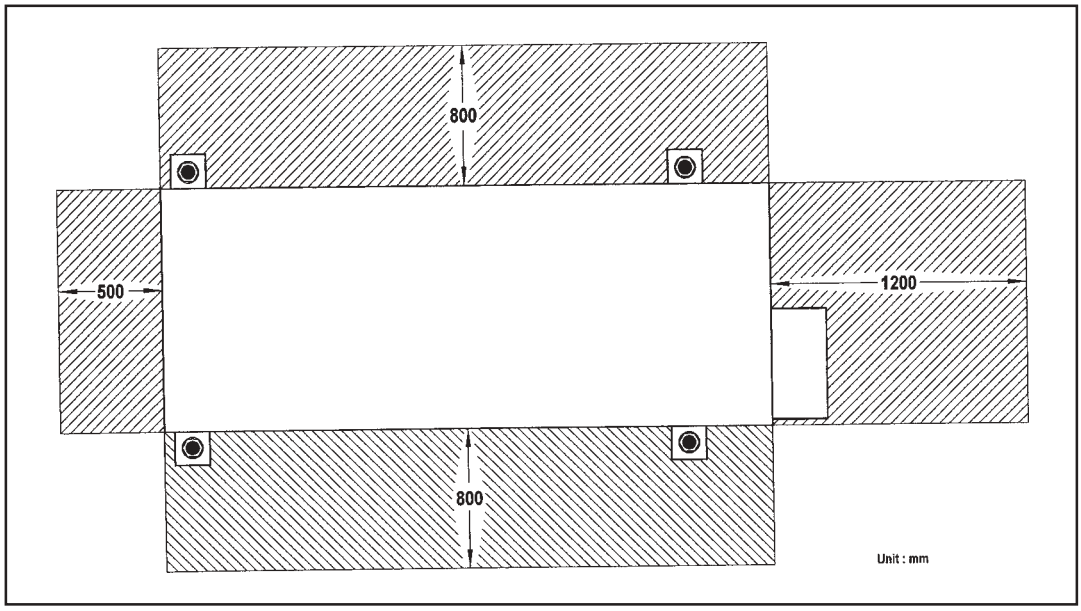


	COOL/HEAT (GREEN/RED)			Normal Operation / Fault Indication	Action
○/●	○ Green		○/●	Cool mode	-
○/●	○ Red		○/●	Heat mode	-
○/●	○ Red ◑ Green			Auto mode in heating operation	-
○/●	○ Green ◑ Red			Auto mode in cooling operation	-
	○	○		Timer on	-
○	○			Sleep mode on	-
	○		○	Ionizer on	-
		◑		Room air sensor contact Loose / Short Outdoor coil sensor contact Loose / Short	Call your dealer
◑		◑		Indoor coil sensor contact Loose / Short	Call your dealer
	◑	◑		Compressor overload protection trip or gas leask	Call your dealer
	◑ Red			Defrost operation	-

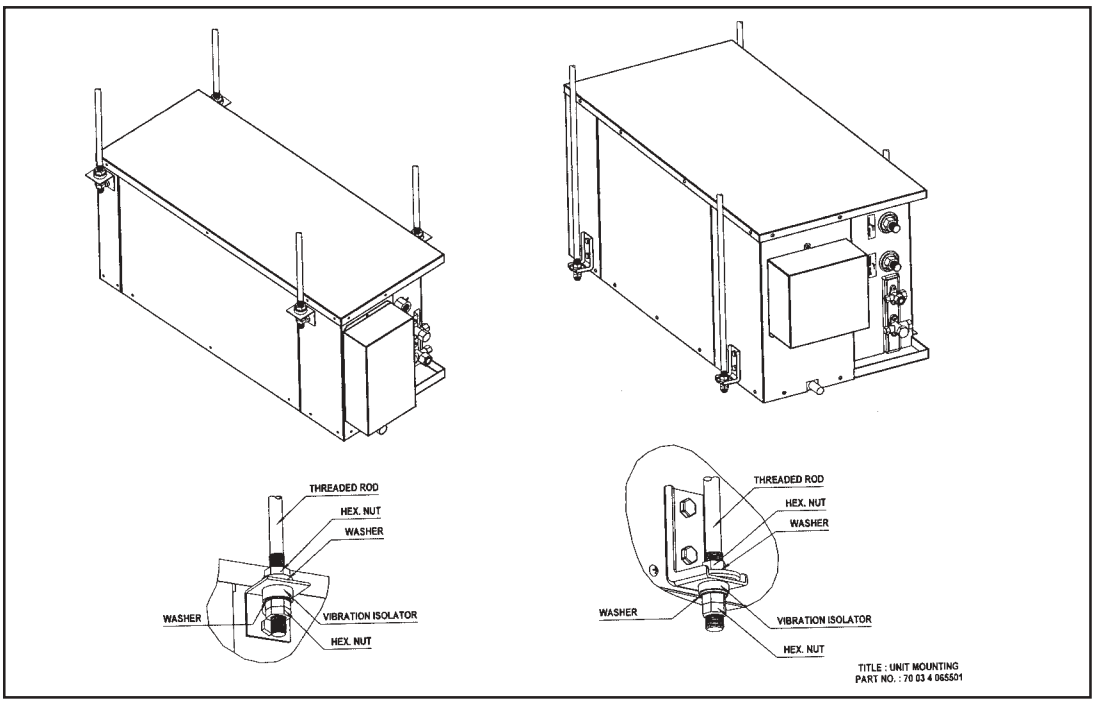
○ - ON ○/● - ON or OFF ◑ - Blinking

Installation
Installation for outdoor unit M5WSS and M5WST

Location
Both the units are not designed for outdoor installation. Install these units at the INDOOR area that provide easy piping connections and enough space for service or repair works. The area or ceiling must be able to withstand the unit weight and is isolated from noise and vibration. Ensure the area is free from water leakage. Follow the recommended installation clearance as shown below:

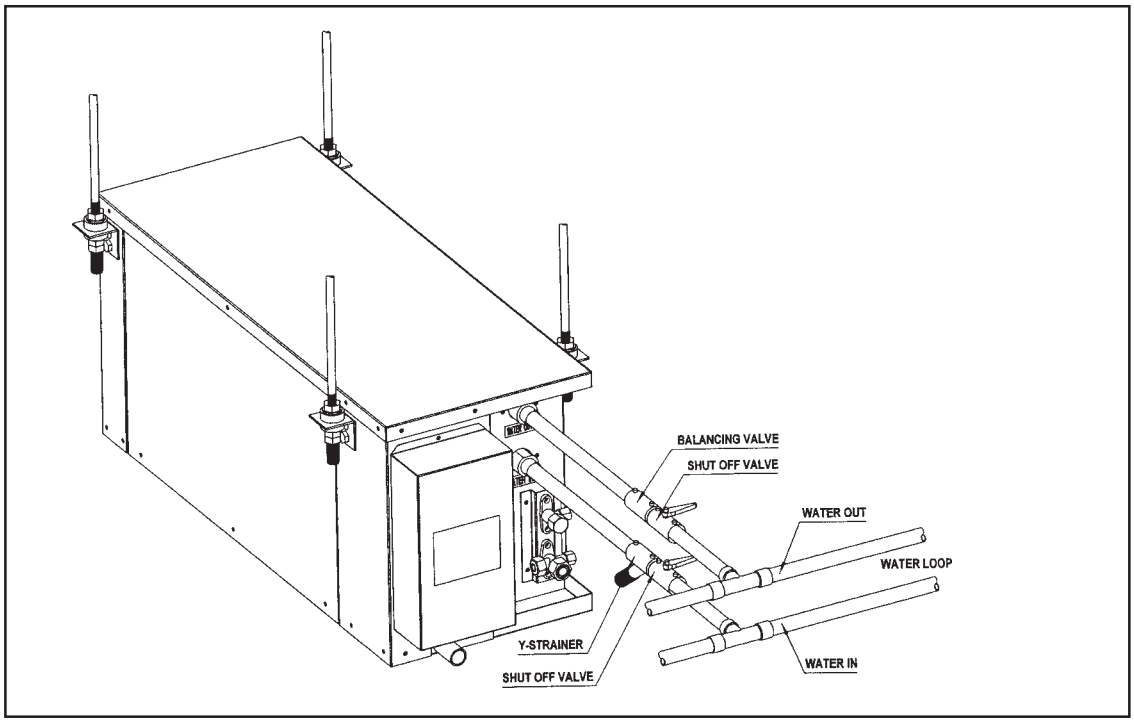


Mounting
Both the units will be mounted on the ceiling by the support of four threaded rod. Use only the supplied hanging bracket. Ensure that the support is strong enough and properly anchored to withstand the weight of the unit.Use isolator rubber for better noise and vibration control. Do not locate the drainage system at any point above the drain connection. Make sure water drainage is good and no leakage before.



Water Loop Piping

The piping connected to the units has to be firmly secured and properly sealed. It is recommended that flexible hoses be used to connect water piping to the unit. It will reduce or eliminate noise transmission (if any) to the main water piping. Do not over tighten the connections. It will cause water leaking or damage the adaptors thread. Shut off valves at supply (water inlet) and water return (water outlet) are required as it will be used for any future service or maintenance work without affecting water flow to other units. The strainer will filter out the dirt or other foreign material. A balancing valve will be used to balance the system. The piping system should be cleaned and flushed prior to operation. Make sure all shut off valves is in the open position before operating the unit. To ensure a proper water flow, the differential water temperature between inlet and outlet should be 5°C (41°F) to 8°C (46.4°F).



Electrical Connections

Wiring regulations differ from country to country. All field wiring must comply with your LOCAL ELECTRICAL CODES. All safety precautions need to strictly adhere.

General Precautions

- Ensure the rated voltage and phase of the unit corresponds to the unit name plate before carrying out wiring.
- Provide a power outlet to be used exclusively for each unit. A power supply disconnect and circuit breaker for over current protection should be provided in the exclusive line.
- The unit must be GROUNDED to prevent hazards due to insulation failures.
- All wiring must be firmly connected.
- All wiring must not touch on the hot refrigerant piping, compressor or any moving parts.

Installation For Indoor Unit M5CCWS

Preliminary Site Survey

Electrical supply and installation is to conform to local authority's codes and regulations. (e.g. National Electricity Board). Voltage supply fluctuation must not exceed +/- 10% of rated voltage. Electricity supply lines must be independent of welding transformers which can cause high supply fluctuation. Ensure that the location is convenient for wiring and piping.

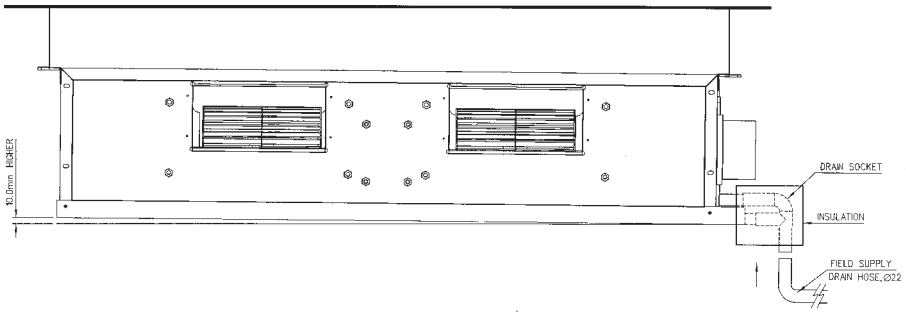
Installation of Indoor Unit

The indoor unit must be installed such a way that there is no short circuit of the cool discharge. Comply to the installation clearance recommended. Do not put the indoor unit where there is direct sunlight on the unit. Make sure the location is suitable for piping and drainage. Precautions steps to be taken:

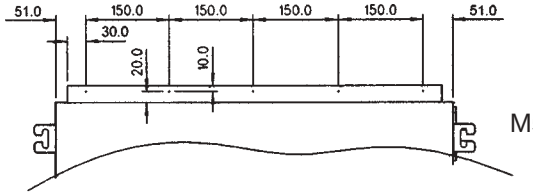
i) Use the hanger supplied with the unit.

ii) Ensure the support is strong enough to withstand the weight of the unit.

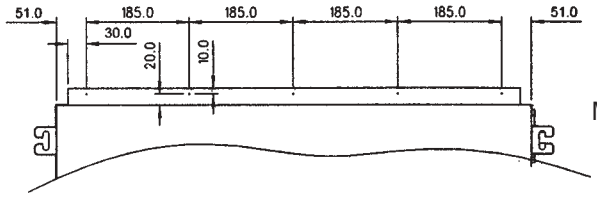
iii) Use the supplied drain socket to connect the drain pipe.



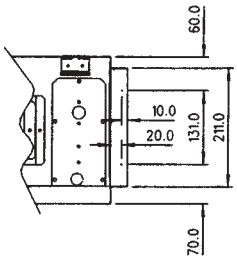
Install the unit in such a way that the condensate water can flow out smoothly.

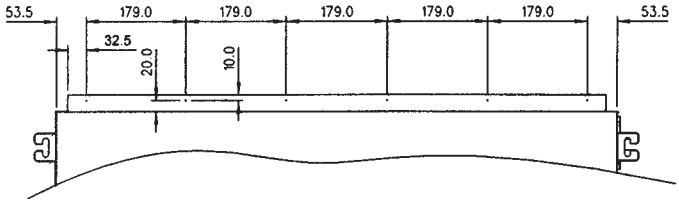


M5CCWS 010CR

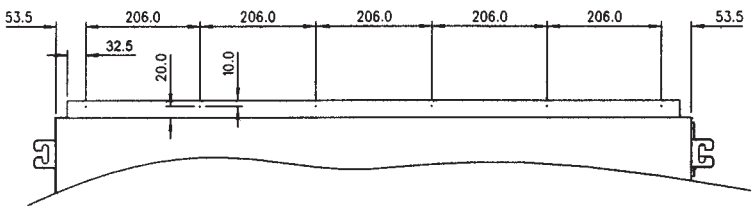


M5CCWS 015CR





M5CCWS 020CR

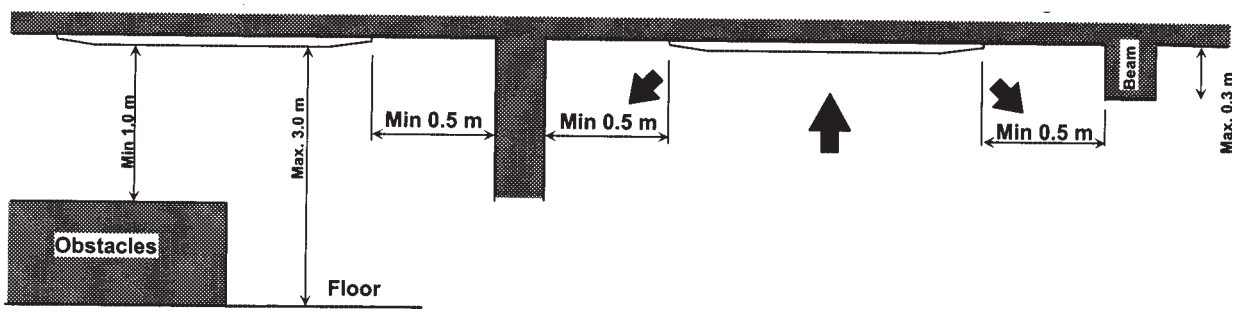


M5CCWS 025CR

Installation For Indoor Unit M5CKWS

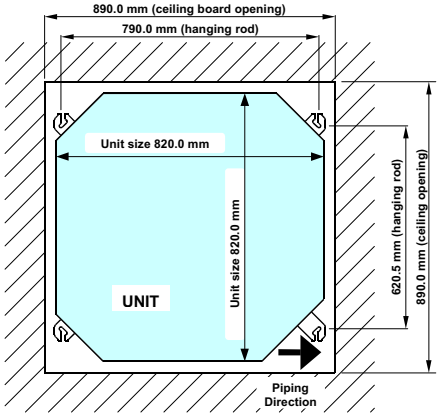
Preliminary Site Survey

- Electrical supply and installation is to conform to local authority's (e.g. National Electrical Board) codes and regulations.
- Voltage supply fluctuation must not exceed ± 10% of rated voltage. Electricity supply lines must be independent of welding transformer which can cause high supply fluctuations.
- Ensure that the location is convenient for wiring, piping and drainage
- The indoor unit must be installed in such that free from any obstacles in path of cool air discharge and warm air return, and must allow spreading of air throughout the room (near the center of the room)
- Clearance must be provided for the indoor unit from the wall and obstacles as shown in the figure.

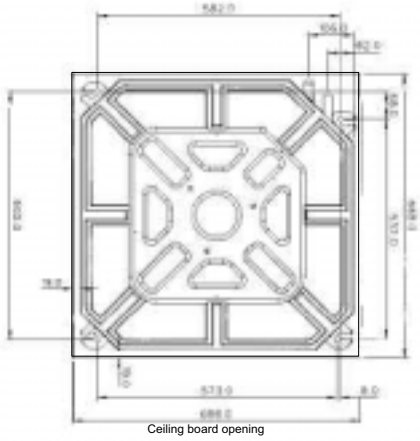


- The installation place must be strong enough to support a load of 4 times the indoor unit weight to avoid amplifying noise and vibration.
- The installation place (handing ceiling surface) must be levelled and the height in the ceiling is 350mm or more.

Unit Installation



M5CKWS-AR

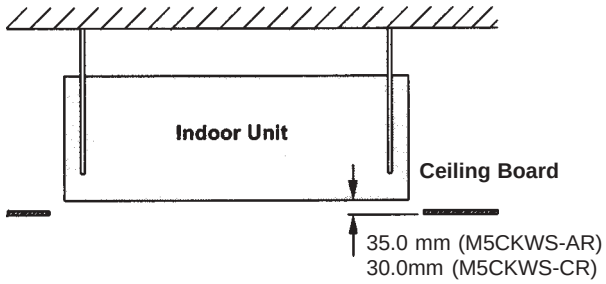


M5CKWS-CR

- The indoor unit must be away from heat and steam sources (avoid installing it near an entrance).
- Measure and mark the position for the hanging rod. Drill the hole for the angle nut on the ceiling and fix
- The installation template is extended according to temperature and humidity. Check on dimensions in
- The dimensions of the installation template are same as those of the ceiling opening dimensions.
- Before ceiling laminating work is completed, be sure to fit the installation template to the indoor unit.

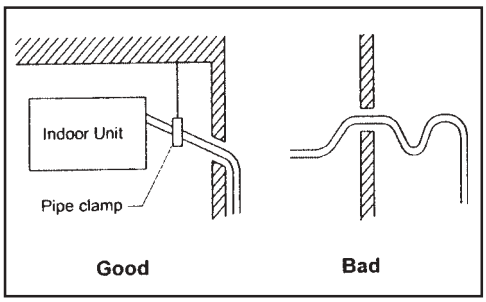
Note : Be Sure to discuss the ceiling driling work with the installers concerned.

Unit Hanging



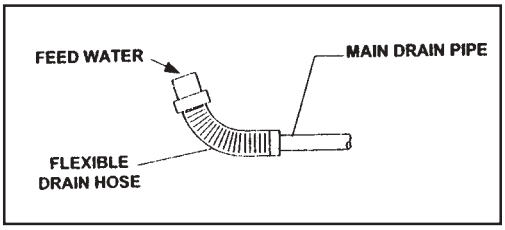
- Confirm the pitch of the hanging rod is 790.0mm x 620.5mm(M5CKWS-AR) and 505.0mm x 538.0mm (M5CKWS-CR).
- Hold the unit and hang it on the hanging rod with the nut and washer.
- Adjust the unit height to 35.0 mm between the indoor unit bottom surface and the ceiling surface.
- Confirm with a level gauge that the unit is installed horizontally and tighten the nut and bolt to prevent unit falling and vibration.
- Open the ceiling board along the outer edge of the paper installation template.

Drain Piping Work



- Drain pipe must be downward gradient for smooth drainage.
- Avoid the drain pipe from up and down slope to prevent reversal flow.
- During the drain piping connection, be careful not to exert extra force on the drain connector at indoor unit.
- The outside diameter of the drain connection at the flexible drain hose is 20 mm.
- Be sure to provide heat insulation (polyethylene foam with thickness more than 8.0 mm) on the drain piping to avoid the condensed water dripping inside the room.

Drain Test

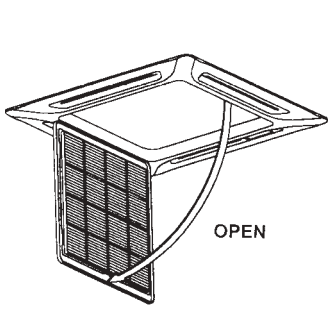


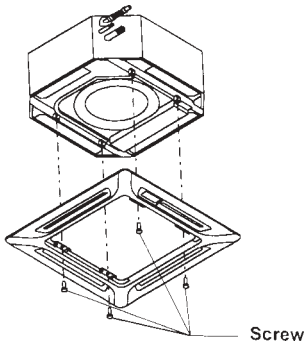
- Connect the main drain pipe to the flexible drain hose.
- Feed water from flexible drain hose and check the piping for leakage.
- When the test is completed, connect the flexible drain hose to the drain connector on the indoor unit.

Note: This indoor unit use drain pump for condensed water drainage. Installed the unit horizontally to prevent water leakage or condensation around the air outlet.

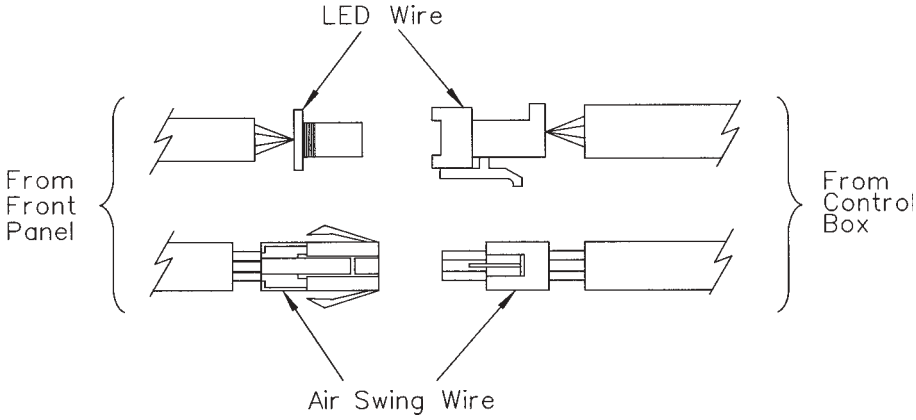
Panel Installation

- The front panel can only be fitted in one direction, follow the piping direction. (Follow piping arrow sticker on front panel).
- Be sure to remove the installation template before installing the front panel.

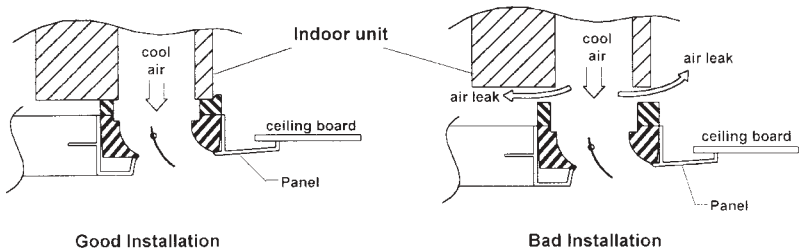




- Open the air intake grille by pulling back the catchers and remove it together with filter from panel.
- Install the front frame panel onto the indoor unit by using 4 screws and tighten it completely to prevent cool air leakage.
- Connect the LED wire and air swing wire to the indoor unit (Optional).



Note: Install the front frame panel firmly to prevent cool air leakage which will cause condensation and water dripping.

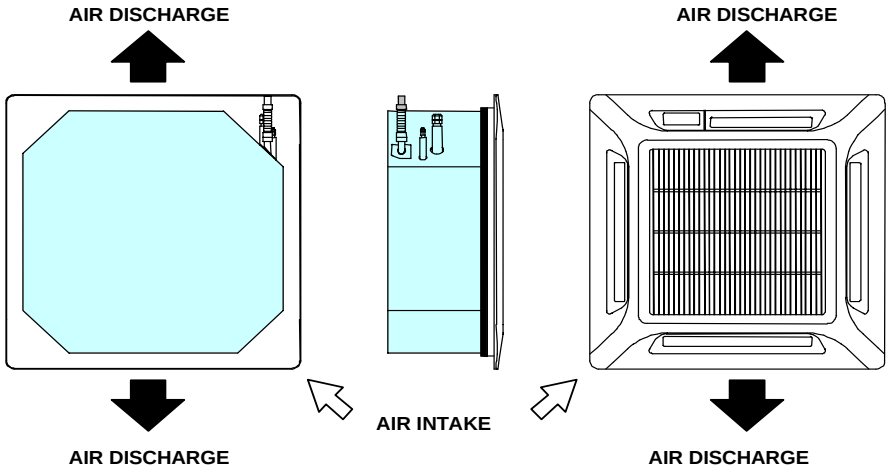


Short Duct Specification
Applicable for M5CKWS-AR Series Only

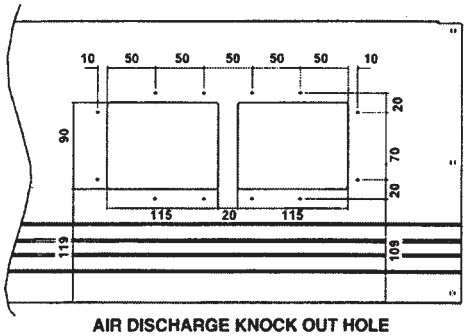
- The indoor unit is provided with air discharge and air intake “knock-out” hole for duct connection. However the connection of the short duct for air discharge is possible on only one side.

- The use of short duct for air discharge will improve air flow distribution if there is an obstruction (such as alighting fixture) or in a long, narrow room or an L-shaped room. It is also used for air-conditioning of two rooms simultaneously.

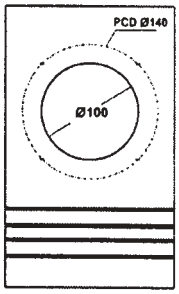
Possible Direction for Air Discharge and Air Intake



Possible Opening Dimension For Duct Connection



AIR DISCHARGE KNOCK OUT HOLE



AIR INTAKE KNOCK OUT HOLE

Note:
1. **Avoid to use the short duct on which the air discharge grille can be completely closed, to prevent evaporator freezing.**
2. **In order to prevent condensation forming, be sure that there is sufficient thermal insulation and no leakage of cool air when installing the short duct.**
3. **Keep the introduction of fresh air intake within 20% of total air flow. Also provide a chamber and use a booster fan.**

Fresh Air Intake for M5CKWS-CR Unit

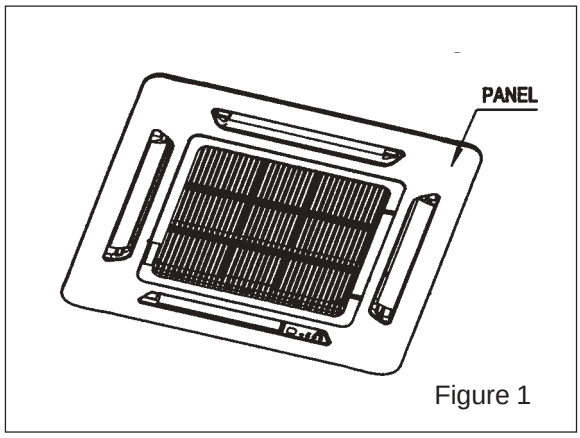


Figure 1

Take off the panel from the indoor unit

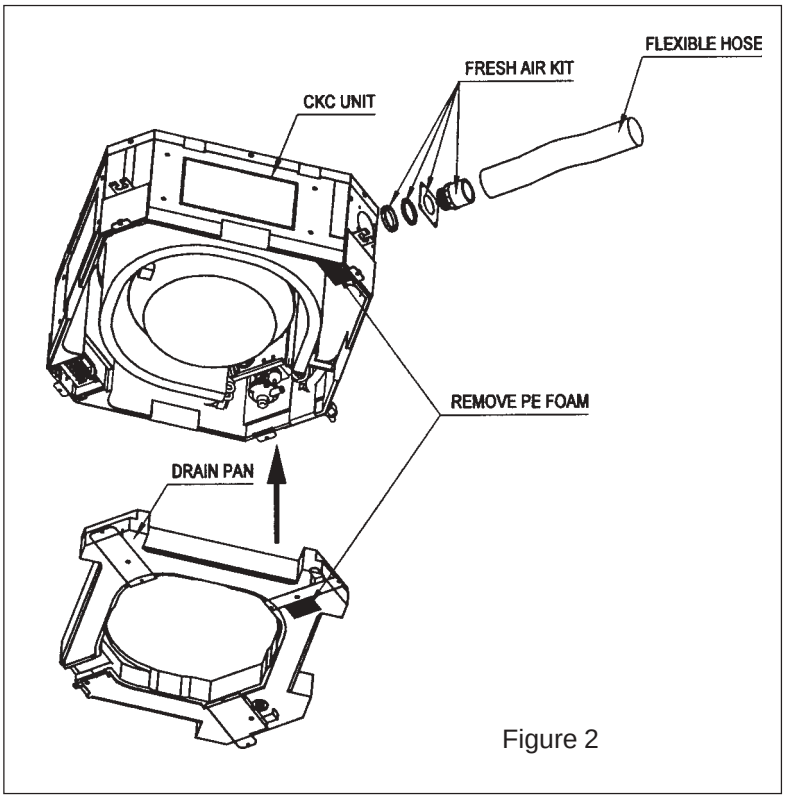


Figure 2

Remove the PE foam from the drain pan and another one on the unit.

Remove the pre-punched panel on the CKC unit with a screwdriver.

The diameter of the air intake knock out hole is 65mm

Then, fix the fresh air kit (refer to parts list) to the hole.

Finally, a flexible duct is connected to let the fresh air moving in.

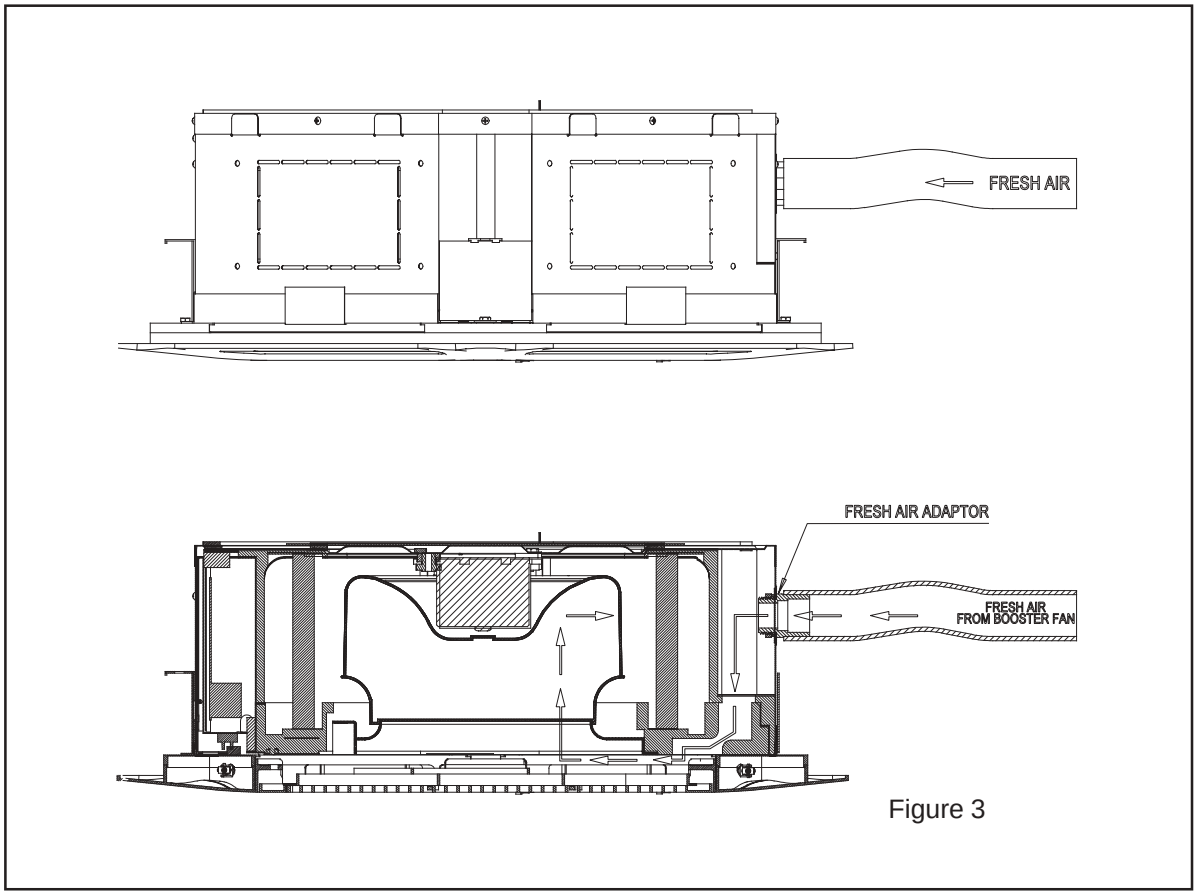


Figure 3

The direction of the fresh air intake is shown as figure 3.

Sealing Material

- It is possible to seal one of the four air discharge outlet (sealing two or more air discharge outlet could cause a malfunction).
- Remove the front panel and inserting the seal material into the air discharge outlet at the indoor unit to seal the air outlet.
- The sealing material is the same length as the length air discharge outlet. If it is desired to seal the shorter air discharge outlet, cut the sealing material to shorten it.
- Push the sealing material in about 10mm beyond the bottom surface of the indoor unit so that it does not touch the air louver. Be sure not to push the sealing material in any father than about 10mm.

Installation For Indoor Unit M5WMWS

Location and Space

Install the fan coil (indoor) unit at a location with the following requirements

- Location is suitable for wiring, piping and drainage.
- No obstruction of air flow into and out of unit where cooler air can be evenly distributed. (See Fig. 1)
- Ensure that air discharge is not short circuited with air intake.
- Ensure that wall is sufficiently strong, rigid, flat, perpendicular and vibration free.
- Where air filter cassette can be slided in or out easily.
- Where there is no danger of flammable gases.
- Where there is no direct sunlight on unit.
- Also to take into consideration a place for the installation of the Wireless LCD Remote Controller.

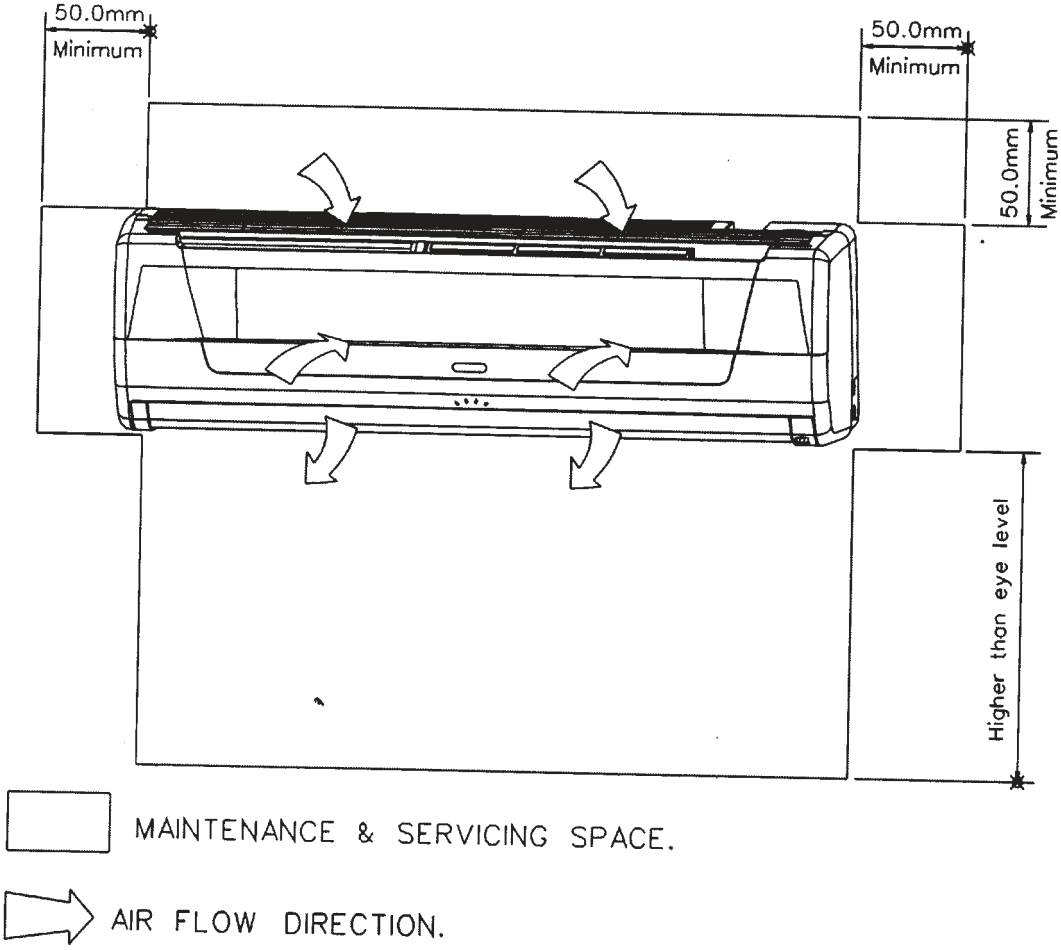


Figure 1

CAUTION :	**DO NOT INSTALL UNIT NEAR THE DOOR WAY BECAUSE EXCESSIVE FRESH AIR MAY CAUSEPANEL CONDENSATION ON THE UNIT.**

Preparation

- The refrigerant piping can be routed to the unit in 5 direction, by using the cut outs in the unit casing. (See fig. 1)

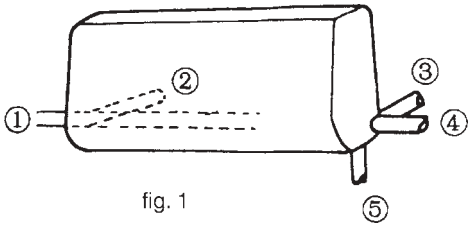


fig. 1

- Carefully bend the pipes to the required position to align with the hole. For right hand and rear side draw out, hold the bottom of the piping and fix direction before shaping it to the desired position (See fig. 2). The condensation drain hose should be taped to the pipes with vinyl tape. The electrical cable can also be taped to the pipes**.**

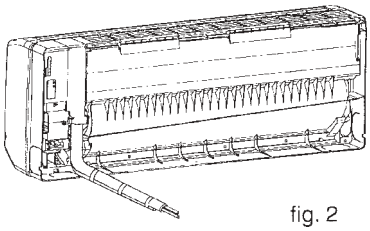
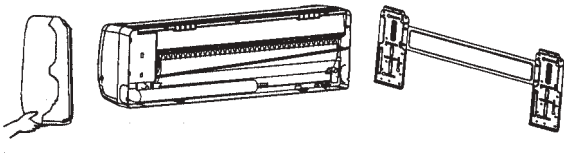


fig. 2

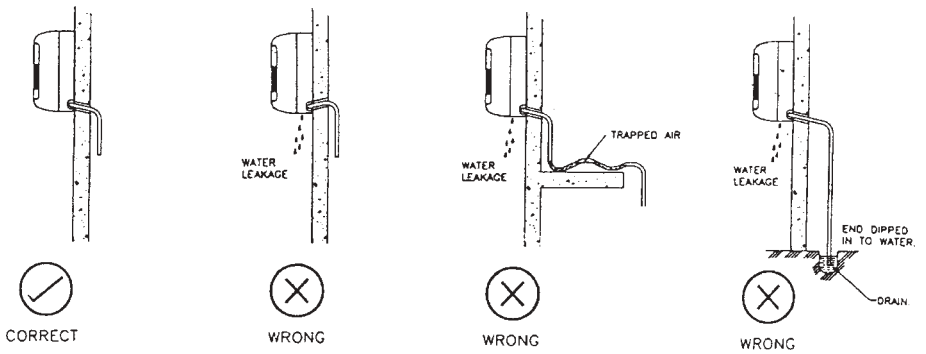
Mounting

Hook the indoor unit onto the upper portion of installation plate. (Engage the 2 hooks of rear top of the indoor unit with the upper edge of the installation plate). Ensure the hooks are properly seated on the installation plate by moving in left and right.



Water Drainage Piping

The indoor drain pipe must be downward gradient for smooth drainage. Avoid situation as shown in figure below.



Special Precautions for R410A

Introduction

R410A is a near azeotrope refrigerant mixture of hydro fluorocarbon (HFC) which is environmental friendly. It has Zero Ozone Depletion Potential (ODP=0) and this conform to Montreal Protocol regulations. It has no flame propagation and a low toxic refrigerant (rated as A1 by ARI). R410A is a mixture of R32 (50%) and R125 (50%). It will be the new generation of refrigerant to replace R22.

Characteristic

R410A system has as operating pressure of about 1.6 times higher than R22 at the same temperature. It possessed better heat transfer properties and lower pressure loss across the system. It will boast a better and higher efficiency system. However, the two (R32 & R125) components of R410A have different evaporating temperatures thus charge only liquid phase during field charging.
R410A compressor uses polyol-ester oil (POE) as lubricant which is prone to moisture contamination (hydroscopic). It has to be treated in a more cautiously manner than other conventional mineral oil.
R410A is chemically stable refrigerant. However, if the refrigerant leaks into an airtight room when the vapour specific gravity is higher than the air, it will stay at the lower part of the room and cause oxygen starvation area. If it contacts with fire, toxic gas may be generated.

R410A System Handling Guidelines

1. Do not mix R410A with other refrigerant into the system.
2. Use only exclusive flare tools, manifold gauge, charging hose, pressure gauge, torque wrench, vacuum pump and gas leak detector for R410A.
3. R410A pressure is about 1.6 times higher than R22. Extra caution when performing installation and service.
4. Do not expose the system for too long. POE oil will absorb moisture into the system that will generate acid and cause capillary clogging or compressor motor winding damage. Cover temporary the refrigerant valve or copper tube opening when performing installation or servicing. Install a bi-flow filter dryer (two-way) along the liquid piping to absorb the unwanted moisture. Residue POE oil in the piping and components can absorb moisture from the air.
5. Identified refrigerant before charging. R410A refrigerant cylinder is pink coated. Charge only R410A liquid phase into the units.
6. Vacuum the system to –76cmHg thoroughly to remove incompressible air and moisture.
7. After complete installation, check the whole system for leakage. Additional R410A charge when leaking is not allowable. If leakage occurs, fix it and then evacuate thoroughly before recharge with R410A.
8. Do not top up additional lubricant oil especially mineral oil into the compressor or air conditioning system.
9. If refrigerant gas leak occurs during installation / servicing, make sure the area is ventilate fully.
10. Unauthorized modification of the units is not allowed. In case of refrigerant or water leakage, electric short circuit and system breakdown, please contact your nearest authorized dealer or distributor.

R410A Refrigerant Piping

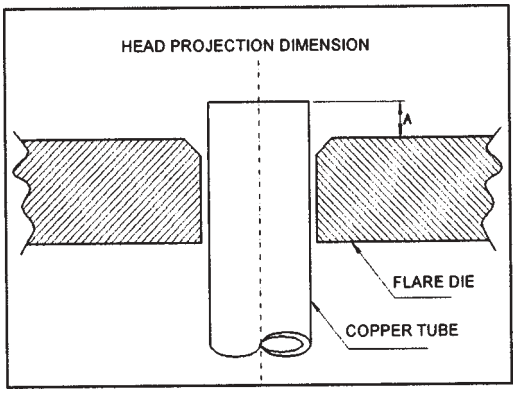
Copper Pipe Connection

Do not use contaminated, dented or used copper tubing. Do not use mineral oil on flare part. It is necessary to use proper copper tubing for safety reasons as R410A has a higher pressure than R22 or R407C. Do not use copper tubes with less than 0.8 mm thickness. All piping connections are by the method of flaring. Install a bi-flow (two ways) filter drier at the liquid line to absorb unwanted moisture in the system. R410A compressor uses POE oil as lubricant which is very hygroscopic and hydrolysis may occur that will generate acid when mix with moisture or water.

Flare Work

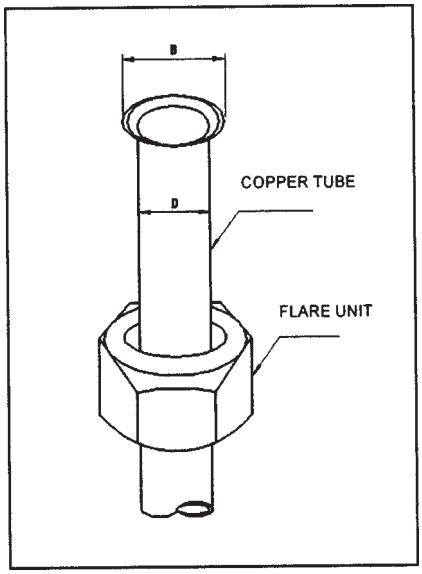
Use either a flare tool specially for R410A or a conventional type. Head projection dimension may differ according to type of flare tool. Refer to table below:

Diameter		A(mm)	
in	mm	Clutch Type For R410A	Conventional Clutch Type
1/4	6.35	0-0.5	0.7-1.3
3/8	9.52	0-0.5	0.7-1.3
1/2	12.7	0-0.5	0.7-1.3
5/8	15.88	0-0.5	0.7-1.3
3/4	19.05	0-0.5	0.7-1.3



Flare end diameter is also different for R410A. Flare section should be uniform or even. Crack on the flare section or burr on the flare edge is not acceptable. Make new flare tubing again to prevent potential gas leak.

Diameter D		Flare End Diameter
in	mm	
1/4	6.35	9.1
3/8	9.52	13.2
1/2	12.7	16.6
5/8	15.88	19.7
3/4	19.05	24.0



Tightening Torque

Use proper torque wrench to tight the flare nuts. If the torque strength is weak, gas leakage may occur. If it is too tight, the flare nut may crack and it may be non-removable.

Diameter D		Torque(Nm)
in	mm	
1/4	6.35	18
3/8	9.52	42
1/2	12.7	55
5/8	15.88	65
3/4	19.05	100

Vacuuming and Charging

Use a vacuum pump with a back flow preventing adapter to prevent the vacuum pump oil mix with R410A which will create sludge and damage the equipment. Use only gauge manifold exclusive for R410A for vacuuming and charging.

a) Gauge Manifold

	Gauge Manifold(R410A)	Connection Port Size
High Pressure Gauge (Red)	-0.1~5.3 Mpa -76 cm Hg ~ 53 kgf/cm^2	½ UNF-20 thread per inch
Low Pressure Gauge (Blue)	-0.1 ~ 3.8 Mpa -76 cm Hg ~ 38kgf/cm^2	

b) Charge Hose

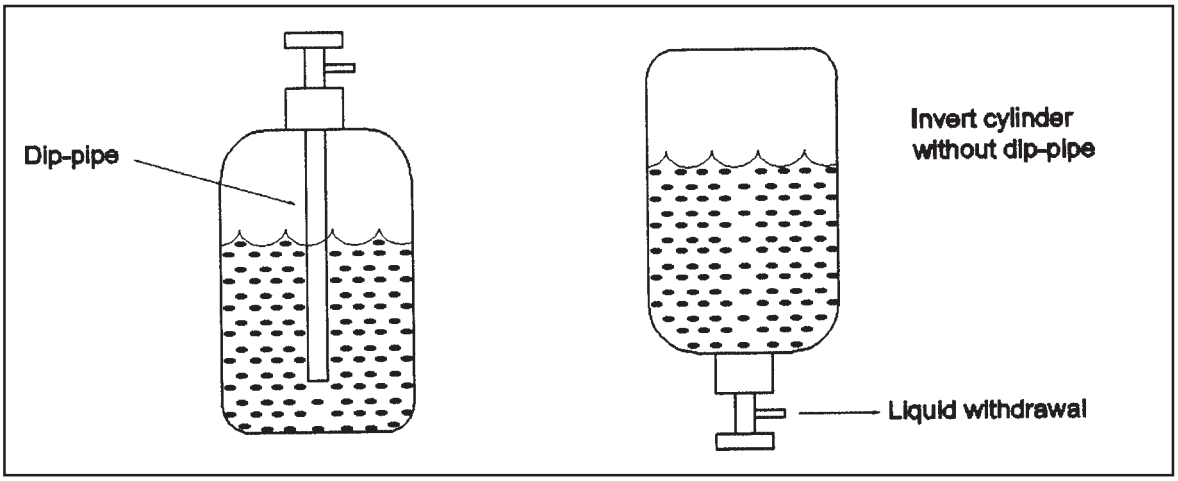
	Charge Hose (R410A)
Operating Pressure	5.1 MPa (51 kgf/cm^2)
Burst Pressure	27.4 MPa (274 kgf/ cm^2)
Connection Size	½ UNF-20 thread per inch

The different size of connection port from the conventional is to prevent wrong refrigerant charging instead of R410A.

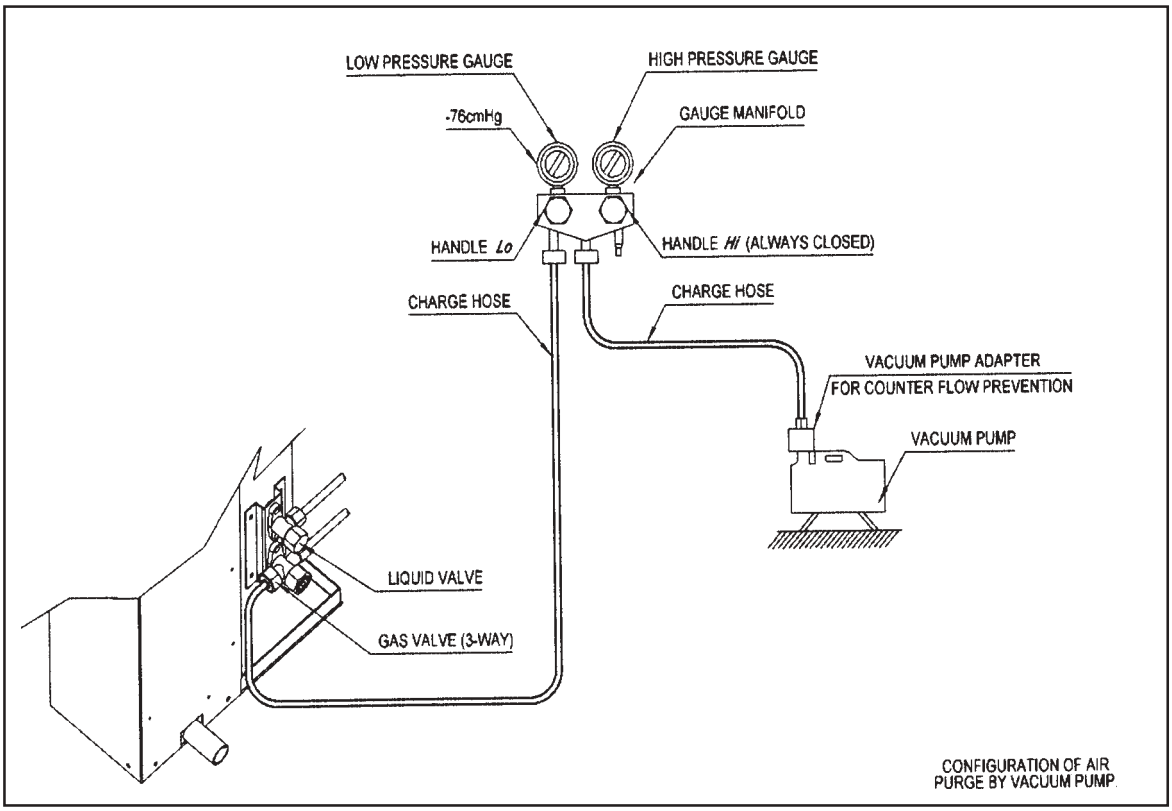
c) Refrigerant Cylinder

A typical R410A charging cylinder will be identified with the refrigerant name and is coated with pink in colour as designated by ARI.

R410A is mixture of refrigerant which have different evaporating temperature. So when charging, make sure only liquid is being withdrawn from the charging cylinder. Charging gas state will affect the performance and operating condition of the system. Invert the cylinder that does not come with dip pipe during charging.



Unit has to be sufficiently vacuumed to -0.1MPa (-76cmHg). Leave the vacuum for 5 minutes to ascertain the gauge pointer do not raise again.



Refrigerant Piping Length, Elevation and Bends

When piping length becomes too long, both the capacity and reliability drop. As the number of bends increases, system-piping resistance to the refrigerant flow increase thus lowering the capacity of the unit and as a result the compressor may become defective. Always choose the shortest path and follow the recommendation as tabulated below.

	M5WSS007AR	M5WSS010AR	M5WSS015AR	M5WSS016AR	M5WSS020AR
Max Length, L	12 m	12 m	12 m	12 m	12 m
Max. Elevation, H	5 m	5 m	5 m	5 m	5 m
Max. No. of bends	10	10	10	10	10
Liquid Valve Size	6.35mm (1/4")	6.35mm (1/4")	6.35mm (1/4")	6.35mm (1/4")	6.35mm (1/4")
Gas Valve Size	9.52mm (3/8")	9.52mm (3/8")	12.7mm (1/2")	12.7mm (1/2")	12.7mm (1/2")

	M5WSS025AR	M5WSS030AR	M5WSS040AR	M5WSS050AR	M5WSS060AR
Max Length, L	12 m	12 m	35m	35m	35m
Max. Elevation, H	5 m	5 m	10m	10m	10m
Max. No. of bends	10	10	10	10	10
Liquid Valve Size	6.35mm (1/4")	9.52mm (3/8")	9.52mm (3/8")	9.52mm (3/8")	9.52mm (3/8")
Gas Valve Size	15.88mm (5/8")	15.88mm (5/8")	15.88mm (5/8")	15.88mm (5/8")	19.05mm (3/4")

	M5WST040AR	M5WST050AR	M5WST060AR
Max Length, L	35m	35m	35m
Max. Elevation, H	10m	10m	10m
Max. No. of bends	10	10	10
Liquid Valve Size	9.52mm (3/8")	9.52mm (3/8")	9.52mm (3/8")
Gas Valve Size	15.88mm (5/8")	15.88mm (5/8")	19.05mm (3/4")

Additional Charge

The pre-charged of R410A in the Water Source Heat Pump unit is suitable for standard pipe of length up:-

a) 2 meter for M5WSS007/010/015/016/020/025/030/040/050AR
b) 5 meter for M5WSS060AR
c) 5 meter for M5WST 040/050/060AR

When the piping is more than the above stated standard pipe length, kindly add additional charge referring to the table below.

Models	gram/meter
M5WSS007AR	18.5
M5WSS010AR	18.5
M5WSS015AR	18.5
M5WSS016AR	18.5
M5WSS020AR	18.5
M5WSS025AR	18.5
M5WSS030AR	18.5
M5WSS040AR	47.5
M5WSS050AR	47.5
M5WSS060AR	47.5

Models	gram/meter
M5WST040AR	47.5
M5WST050AR	47.5
M5WST060AR	47.5

Sound Data

Water Source Single Split Unit

Sound Pressure

Model	1/1 Octave Sound Pressure Level (dB, reference 20μPa)							Overall (dBA)	Noise Criteria
	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
5WSS007AR	41	25	24	28	16	9	10	30	26
5WSS010AR	43	29	30	24	22	13	11	32	24
5WSS015AR	36	30	28	24	19	18	16	30	22
5WSS016AR	47	34	29	30	22	25	24	36	29
5WSS020AR	44	30	34	31	24	27	24	37	30
5WSS025AR	50	33	35	30	23	19	14	37	32
5WSS030AR	47	30	35	26	23	18	17	35	30
5WSS040AR	46	41	37	33	28	25	30	40	33
5WSS050AR	49	45	36	35	33	25	30	42	34
5WSS060AR	48	39	38	33	31	25	24	41	33

Sound Power

Model	1/1 Octave Sound Power Level (dB, reference 1pW)							Overall (dBA)
	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
5WSS007AR	53	43	37	39	30	26	26	43
5WSS010AR	52	45	41	38	33	27	26	44
5WSS015AR	57	47	41	40	34	34	34	46
5WSS016AR	59	49	48	45	37	40	37	51
5WSS020AR	60	45	50	46	39	43	39	52
5WSS025AR	58	49	41	41	33	34	29	46
5WSS030AR	58	44	50	40	36	35	33	48
5WSS040AR	54	56	51	48	48	43	43	55
5WSS050AR	61	57	49	48	50	43	48	57
5WSS060AR	61	57	55	51	47	42	42	57

Microphone position: 1.4m below the center of the unit.

Water Source Tandem Split Unit

Sound Pressure

Model	1/1 Octave Sound Pressure Level (dB, reference 20μPa)							Overall (dBA)	Noise Criteria
	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
5WST040AR	46	39	34	34	24	23	17	40	33
5WST050AR	43	43	41	35	30	27	19	42	34
5WST060AR	47	40	42	39	26	28	26	41	33

Sound Power

Model	1/1 Octave Sound Power Level (dB, reference 1pW)							Overall (dBA)
	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
5WST040AR	55	52	49	46	40	41	36	55
5WST050AR	55	57	54	55	41	42	35	57
5WST060AR	57	57	52	54	43	45	39	57

Microphone position: 1.4m below the center of the unit.

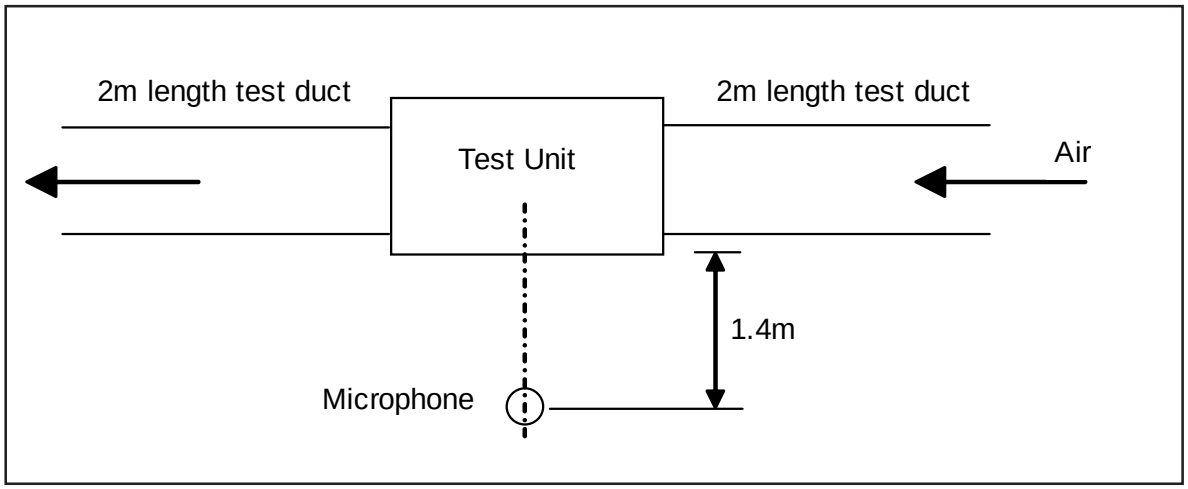
Ceiling Concealed Fan Coil Unit

Sound Pressure

Model	Ext. Static (mmAq)	Speed	1/1 Octave A-weighted Sound Pressure (dBA), ref 20μPa							Overall (dBA)	Noise Criteria
			125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
M5CCWS 010CR	5	High	33	30	30	29	22	16	10	33	27
	4	Medium	31	28	28	26	20	13	8	30	24
	3	Low	28	25	24	22	16	10	7	26	20
M5CCWS 015CR	5	High	39	36	34	32	27	18	11	37	31
	4	Medium	35	34	32	29	23	14	9	34	27
	3	Low	32	29	28	25	17	11	8	29	23
M5CCWS 020CR	6.5	High	42	39	36	34	28	22	17	38	33
	6	Medium	41	37	34	31	26	20	15	36	30
	3.5	Low	40	36	32	29	23	18	13	34	27
M5CCWS 025CR	5.5	High	42	41	37	34	31	29	23	40	33
	4	Medium	41	40	36	33	29	28	22	39	32
	3	Low	36	35	33	31	26	27	21	36	30
M5CCWS 030CR	21	Super High	54	50	46	45	40	34	30	49	44
	17	High	50	45	43	42	37	31	26	46	41
	13	Medium	45	40	40	38	32	26	20	42	37
	9	Low	42	36	37	33	28	22	15	38	32
M5CCWS 040CR	21	Super High	56	49	49	46	41	37	32	51	45
	18	High	54	47	47	45	39	35	29	49	44
	13	Medium	49	42	43	41	35	31	24	45	40
	9.5	Low	45	39	41	37	30	26	18	41	36
M5CCWS 050CR	18	Super High	56	50	50	49	44	38	33	53	48
	16	High	54	49	49	48	43	37	32	52	47
	14	Medium	53	47	46	47	40	35	29	50	46
	11	Low	51	45	44	44	36	32	26	47	43
M5CCWS 060CR	18	Super High	57	50	51	51	46	39	35	55	50
	16	High	55	49	49	50	44	37	33	53	49
	14	Medium	53	46	47	47	39	34	28	50	46
	10	Low	51	43	44	43	35	30	24	47	42

Microphone position: 1.4m below the centre of the unit. (GB Standard - GB/D17758)
Tested with 2m length duct at the air discharge outlet and air return inlet.

Measuring Location:



Sound Power

Model	Ext. Static (mmAq)	Speed	1/1 Octave A-weighted Sound Power (dB), ref 1pW							Overall (dBA)
			125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
M5CCWS 010CR	5	High	57	54	52	52	51	46	44	57
	4	Medium	54	51	50	49	48	43	39	54
	3	Low	51	48	47	46	44	39	35	51
M5CCWS 015CR	5	High	60	58	57	56	54	48	44	61
	4	Medium	56	55	54	53	50	44	40	58
	3	Low	52	50	49	48	44	37	34	52
M5CCWS 020CR	6.5	High	63	62	61	61	59	55	51	65
	6	Medium	61	61	59	60	58	53	49	64
	3.5	Low	57	56	56	56	53	48	44	60
M5CCWS 025CR	5.5	High	63	52	61	62	59	56	53	66
	4	Medium	61	60	59	60	57	53	50	64
	3	Low	58	57	56	57	54	49	47	61
M5CCWS 030CR	21	Super High	68	69	71	72	69	66	65	76
	17	High	65	66	68	69	65	63	60	73
	13	Medium	61	62	64	65	61	58	55	69
	9	Low	56	58	60	61	57	53	49	64
M5CCWS 040CR	21	Super High	69	71	72	74	71	68	67	78
	18	High	65	68	70	72	68	66	64	76
	13	Medium	65	65	67	68	64	62	59	72
	9.5	Low	59	61	63	64	60	57	54	68
M5CCWS 050CR	18	Super High	70	71	73	74	72	69	67	78
	16	High	67	69	71	72	69	66	64	76
	14	Medium	66	66	69	69	66	63	61	73
	11	Low	63	64	66	67	62	60	57	70
M5CCWS 060CR	18	Super High	70	71	73	75	73	70	68	79
	16	High	69	70	72	74	71	69	68	78
	14	Medium	69	68	70	71	67	65	63	75
	10	Low	64	65	67	67	63	61	59	71

Duct Discharge Sound Power Level: Test with 5ft length discharge duct, terminated flush with internal wall of reverberation room.

Ceiling Cassette Fan Coil Unit

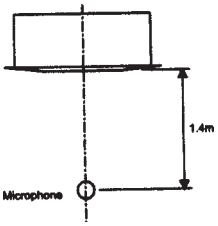
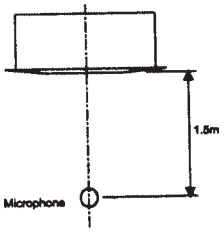
Sound Pressure

M5CKWS-AR

Model	Speed	1/1 Octave Sound Pressure Level (dB, ref 20μPa)							Overall (dBA)	Noise Criteria
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz		
M5CKWS 020AR	HIGH	46	45	40	38	32	21	14	42	37
	MEDIUM	44	43	37	33	28	18	12	39	32
	LOW	43	42	35	31	26	17	11	37	31
M5CKWS 025AR	HIGH	48	46	43	39	33	27	19	45	38
	MEDIUM	45	43	40	35	29	21	15	42	35
	LOW	43	42	38	32	27	19	14	40	33
M5CKWS 030AR	HIGH	50	48	47	43	37	35	28	49	42
	MEDIUM	48	45	43	38	32	31	27	45	38
	LOW	46	43	41	35	30	30	26	43	36
M5CKWS 040AR	HIGH	50	49	49	46	39	38	31	51	45
	MEDIUM	48	47	47	43	36	34	25	48	42
	LOW	46	45	46	41	34	30	23	46	41
M5CKWS 050AR	HIGH	54	52	51	48	43	42	34	53	47
	MEDIUM	52	50	50	46	41	40	32	52	45
	LOW	51	49	49	45	39	39	31	50	45

M5CKWS-CR

Model	Speed	1/1 Octave Sound Pressure Level (dB, ref 20μPa)							Overall (dBA)	Noise Criteria
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz		
M5CKWS 010CR	HIGH	43	46	43	40	33	30	20	44	39
	MEDIUM	42	44	42	39	32	28	19	43	38
	LOW	41	43	40	37	30	25	17	42	36
M5CKWS 015CR	HIGH	45	43	42	39	34	30	19	44	38
	MEDIUM	44	42	40	38	33	28	17	42	37
	LOW	43	41	39	36	31	25	16	41	35
M5CKWS 020CR	HIGH	46	46	45	42	36	38	26	47	41
	MEDIUM	45	46	43	41	35	37	23	46	40
	LOW	43	44	42	39	33	35	20	44	38

Model	Measuring location
M5CKWS 020AR **M5CKWS 025AR** **M5CKWS 010CR** **M5CKWS 015CR** **M5CKWS 020CR**	**Standard : JIS C 9612** 
M5CKWS 030AR **M5CKWS 040AR** **M5CKWS 050AR**	**Standard : JIS B 8615** 

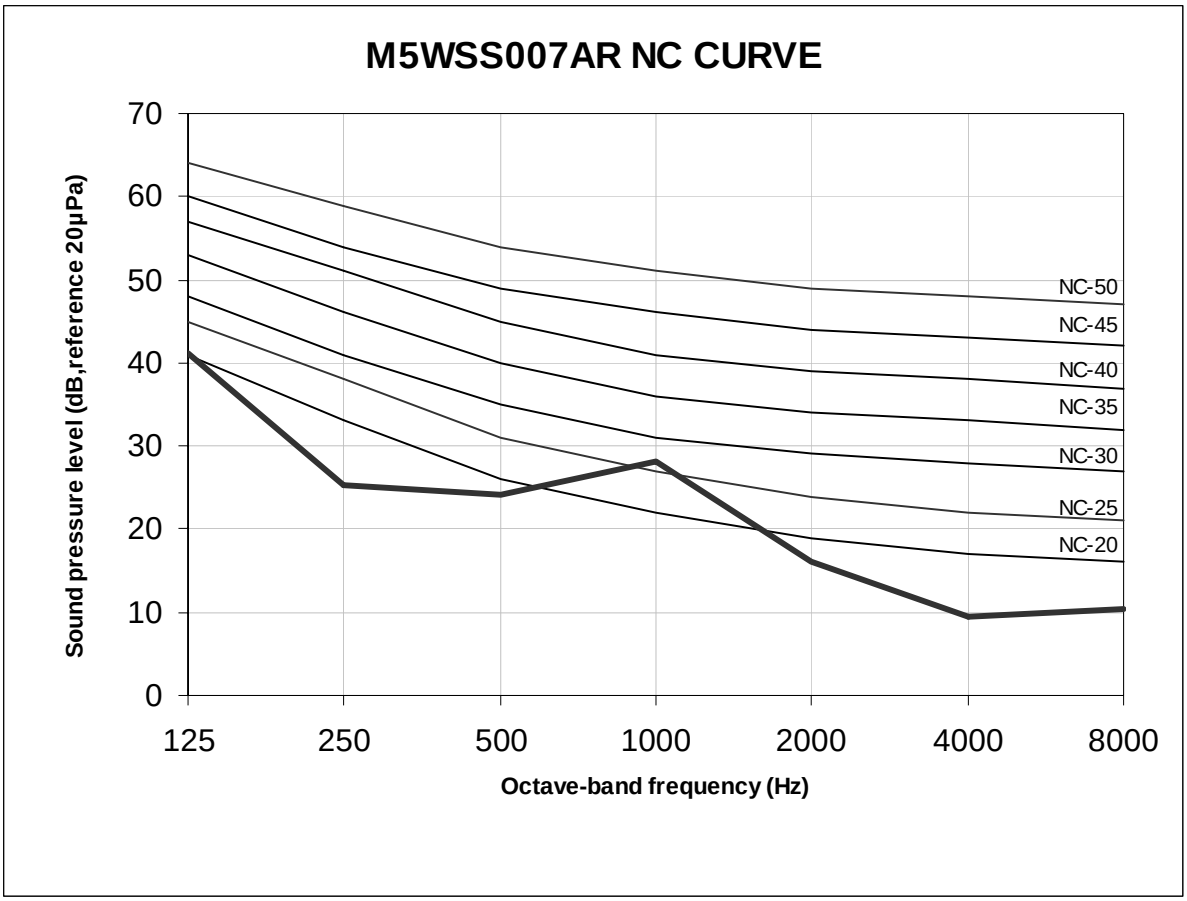
Wall Mounted Fan Coil Unit

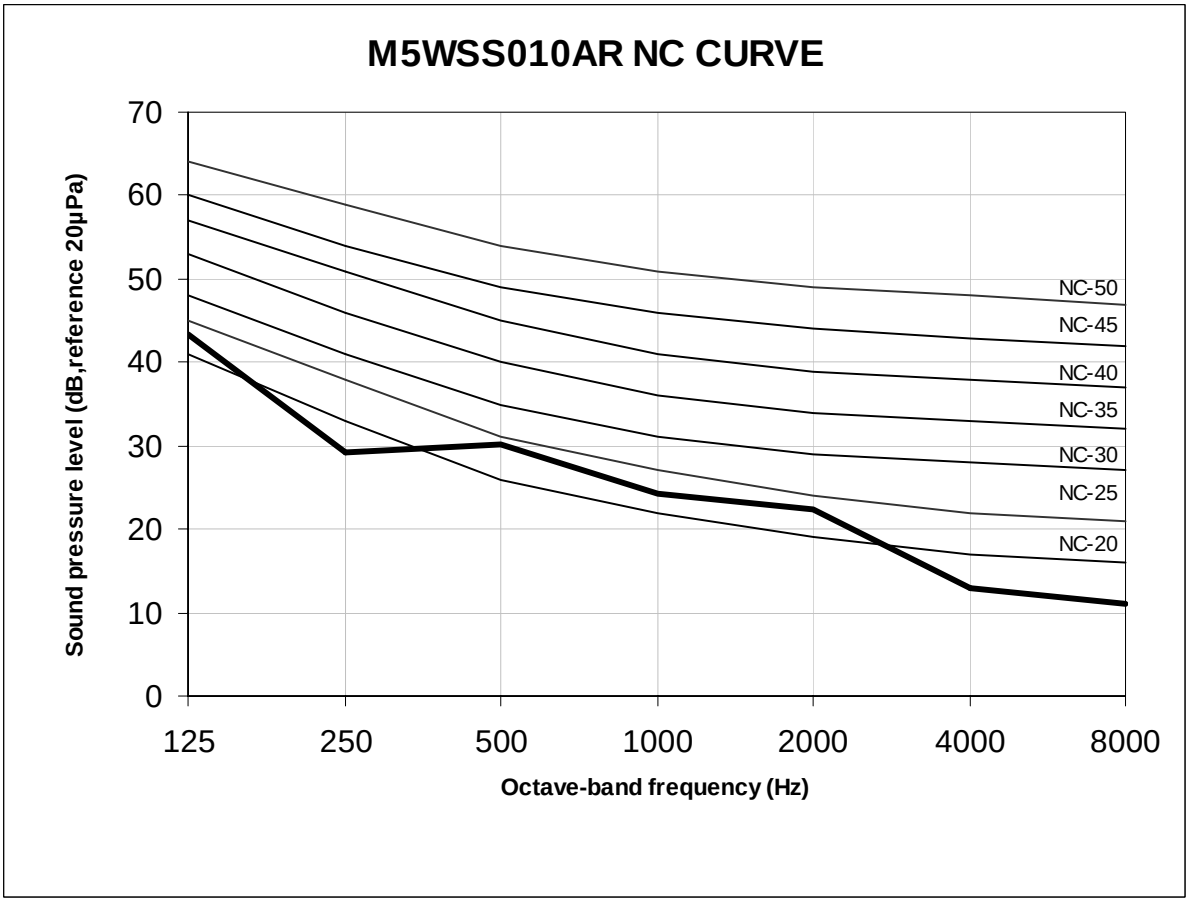
Sound Pressure

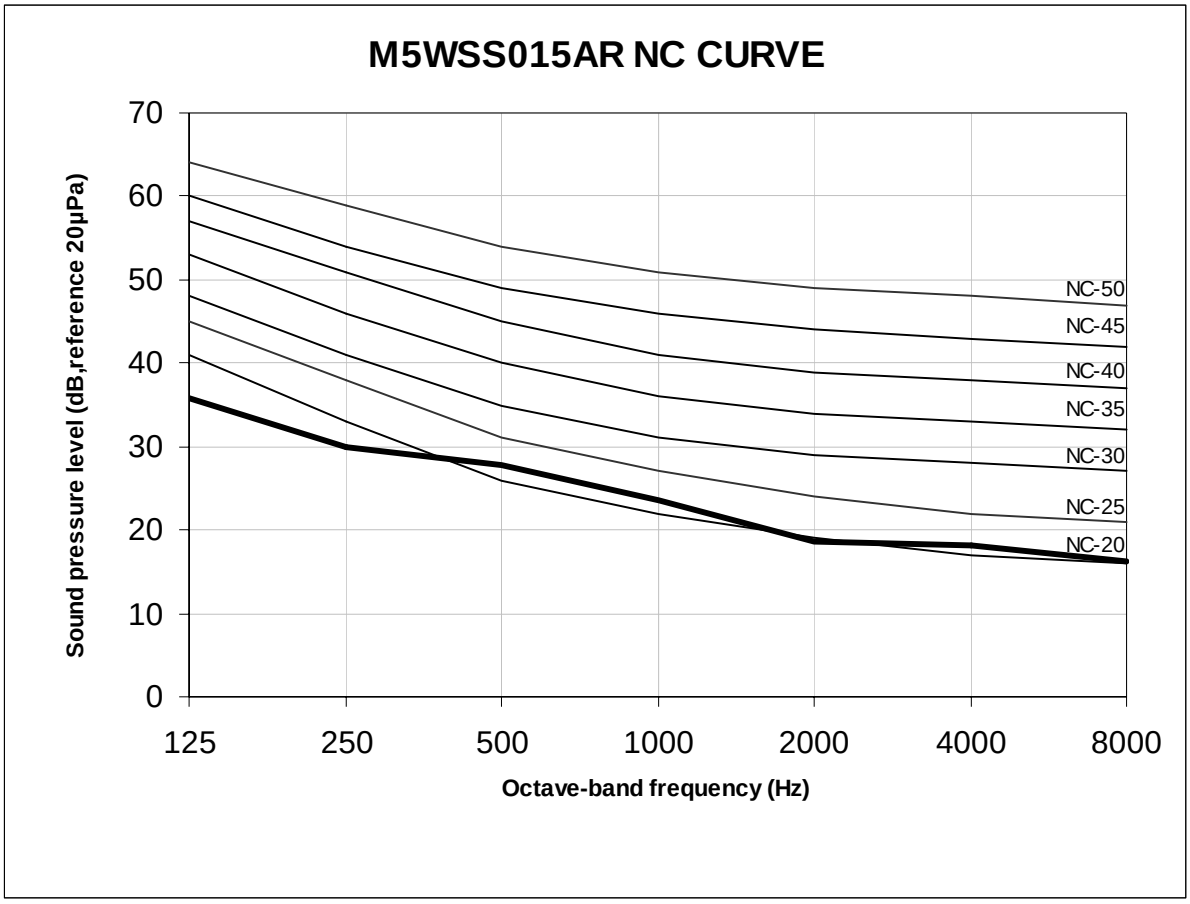
Model	Speed	1/1 Octave Sound Pressure Level (dB, ref 20μPa)							Overall (dBA)	Noise Criteria
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz		
M5WMWS 010GR	HIGH	28	34	37	36	31	22	13	39	35
	MEDIUM	27	30	33	31	25	17	12	34	30
	LOW	24	26	28	25	19	12	11	28	23
M5WMWS 015GR	HIGH	30	35	39	38	33	25	15	42	37
	MEDIUM	28	31	34	33	26	18	13	36	32
	LOW	24	26	28	26	20	13	12	29	24
M5WMWS 020GR	HIGH	37	44	42	37	34	25	15	43	37
	MEDIUM	34	40	39	34	30	21	14	40	34
	LOW	30	35	35	30	26	18	13	35	30
M5WMWS 025GR	HIGH	41	48	47	43	40	32	23	49	43
	MEDIUM	39	44	43	39	35	28	20	44	38
	LOW	37	41	40	36	32	25	19	42	35

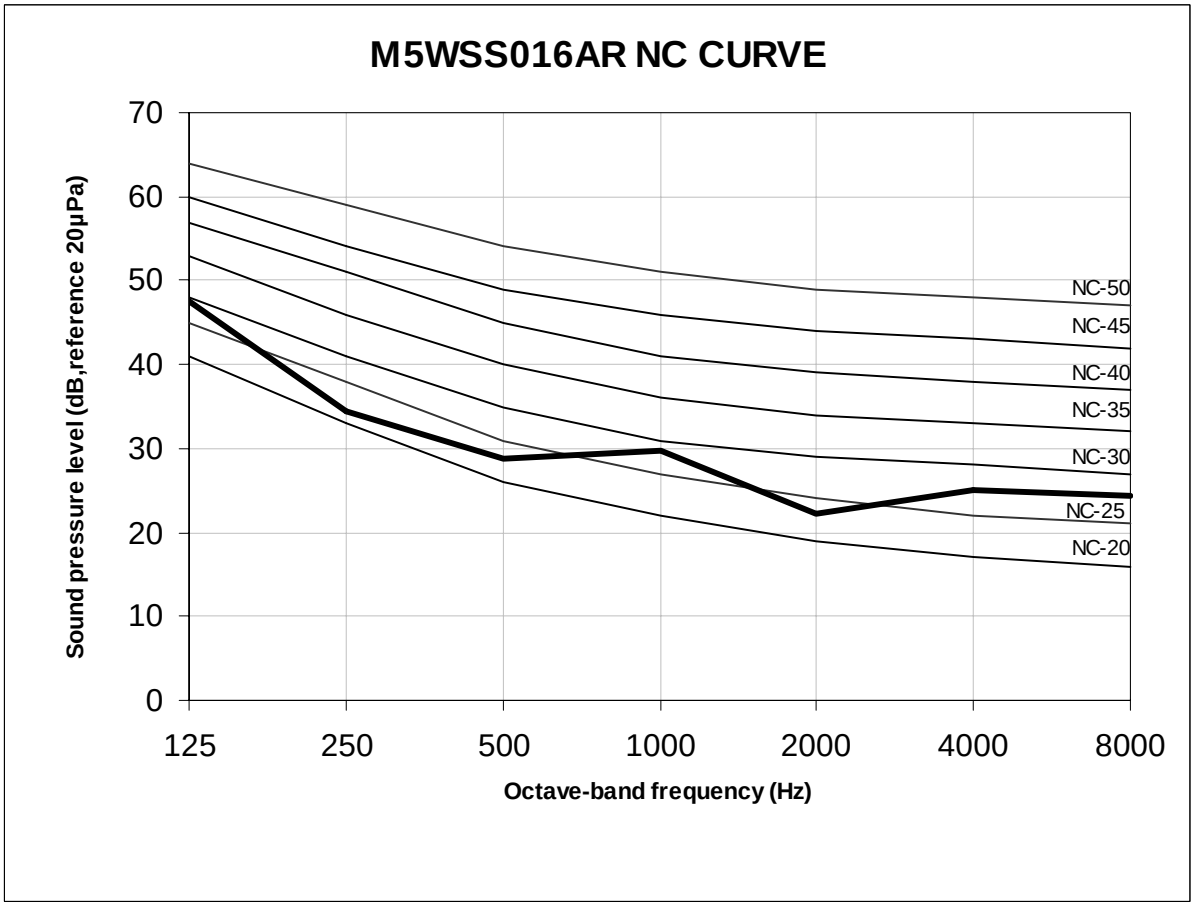
Microphone Position: 1m in front and 0.8m below the vertical centre line of the unit

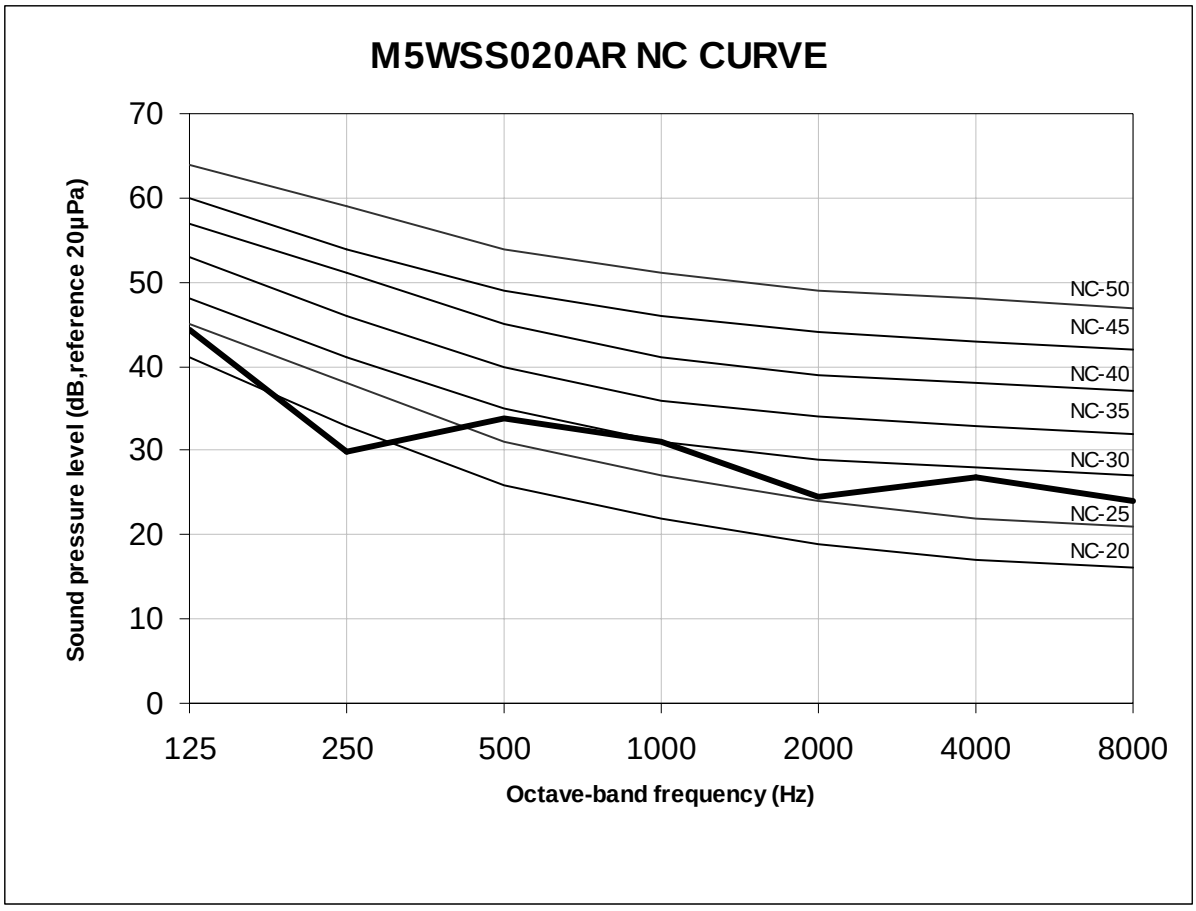
NC Curves

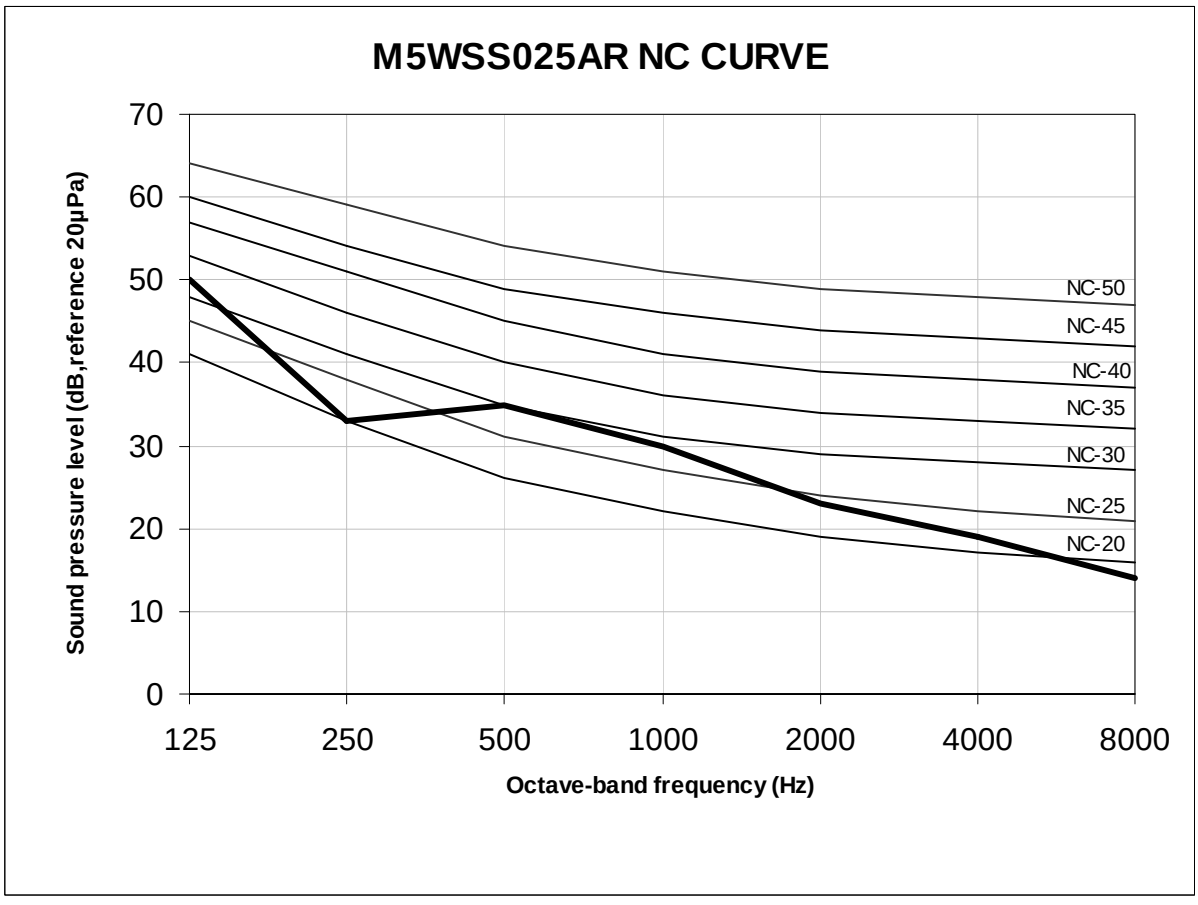

M5WSS007AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20

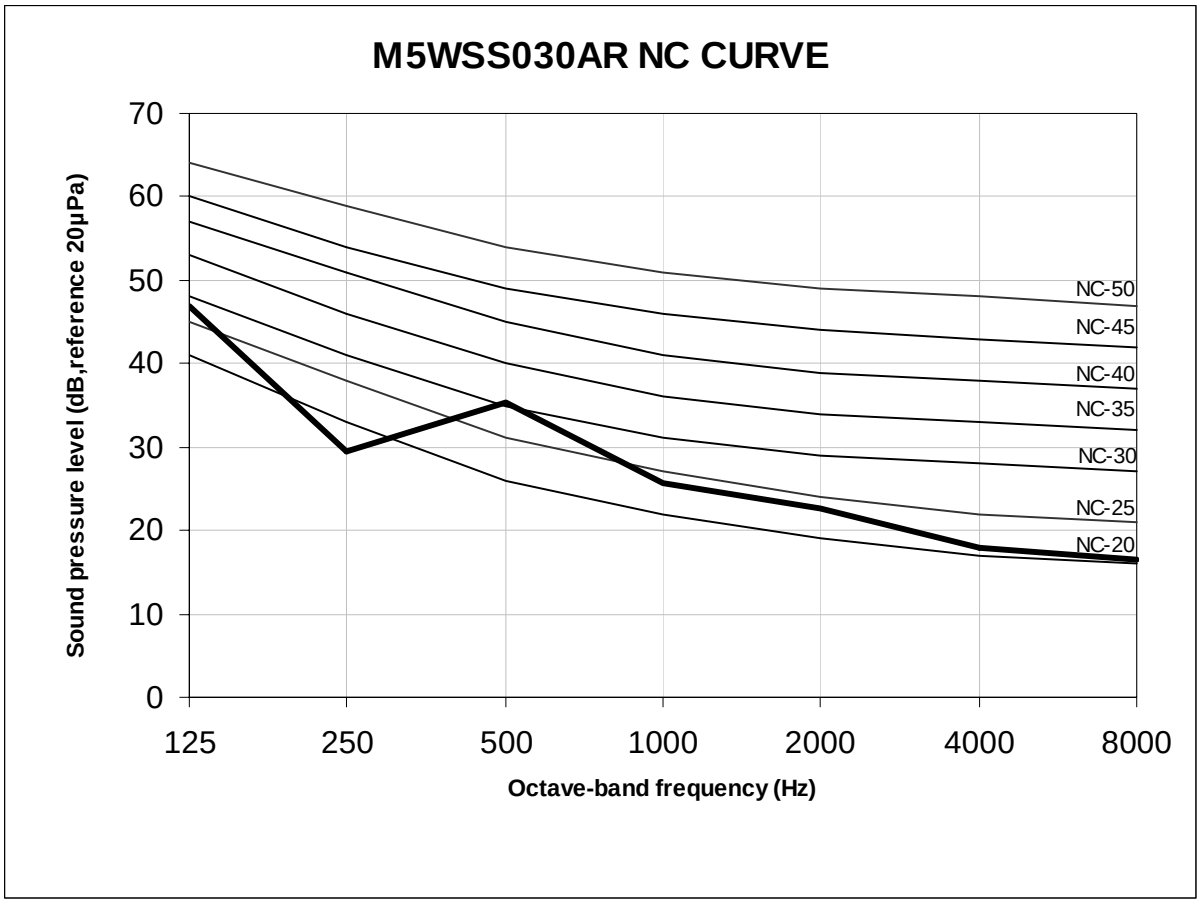

M5WSS010AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20

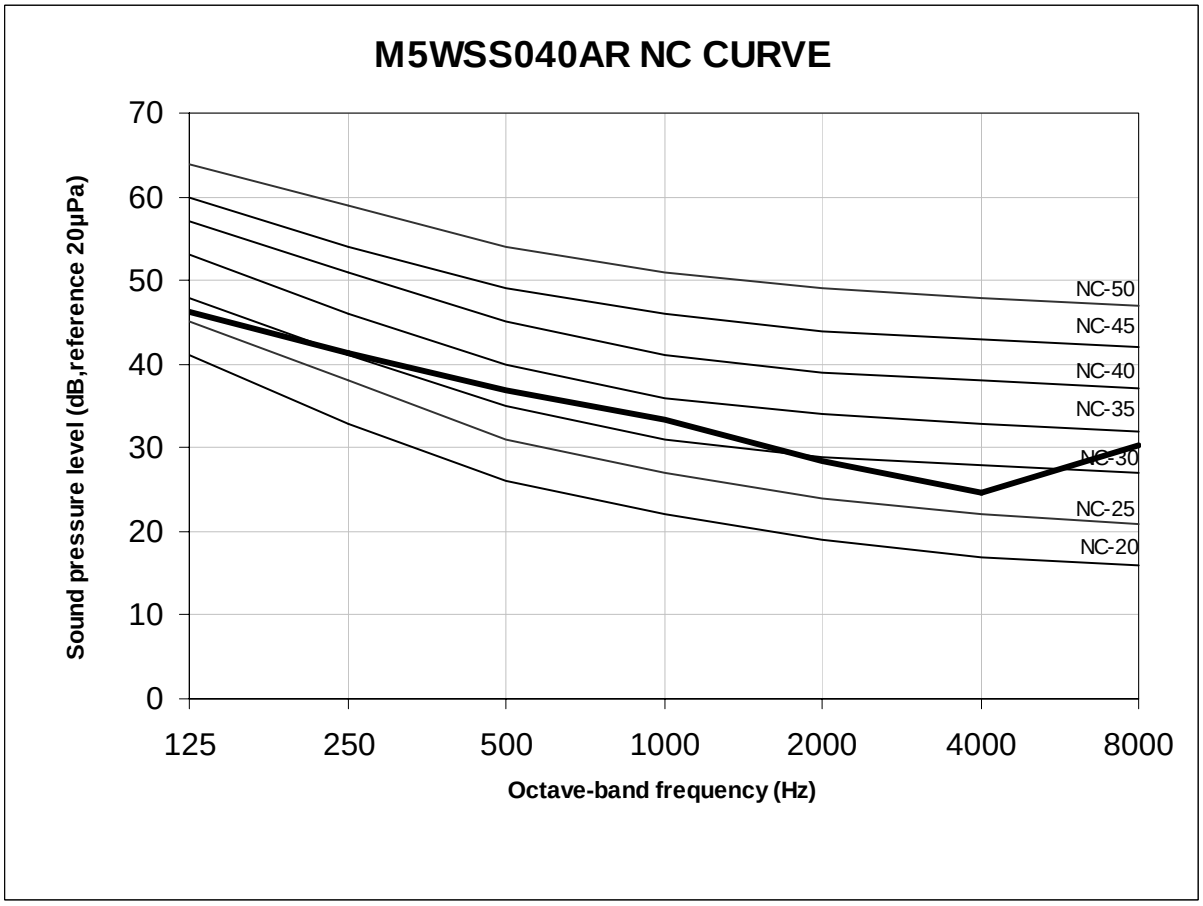

M5WSS015AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20

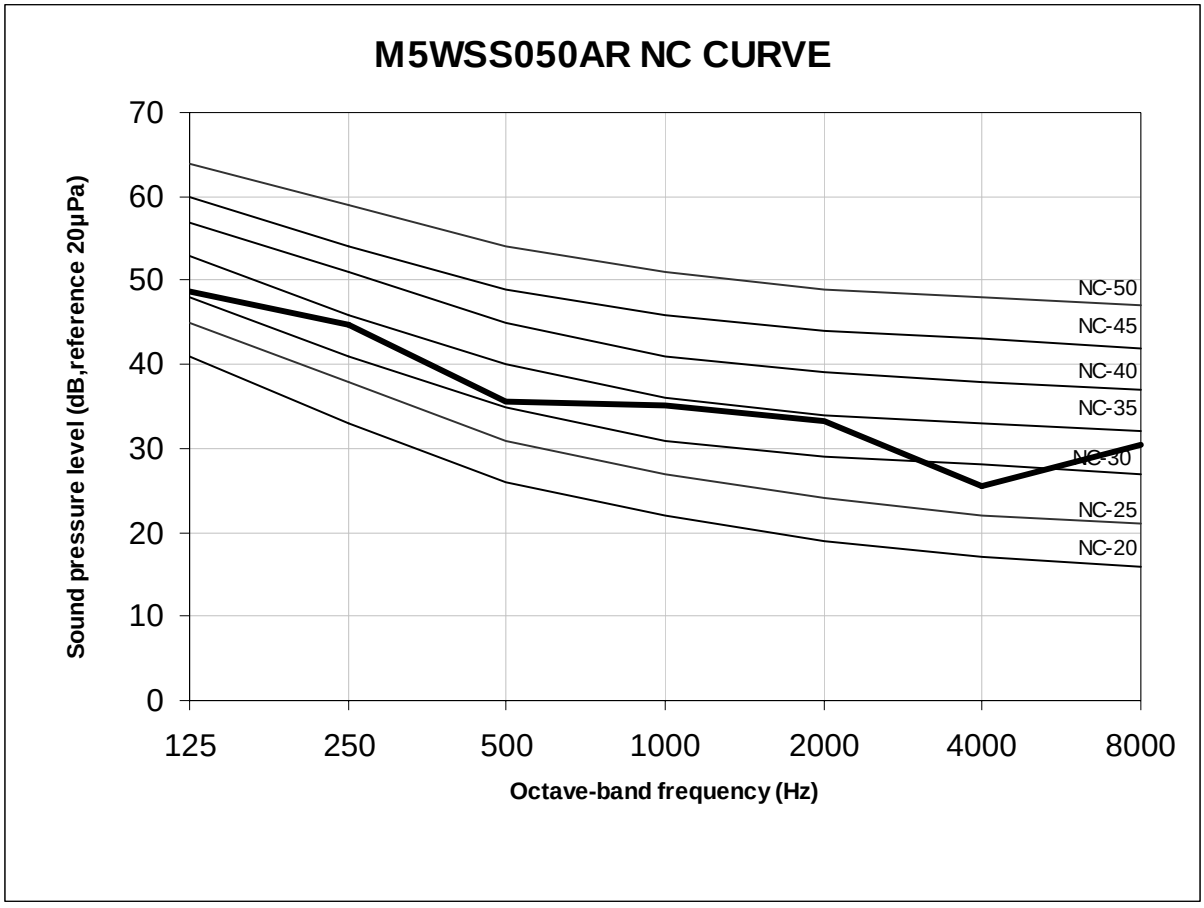

M5WSS016AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20

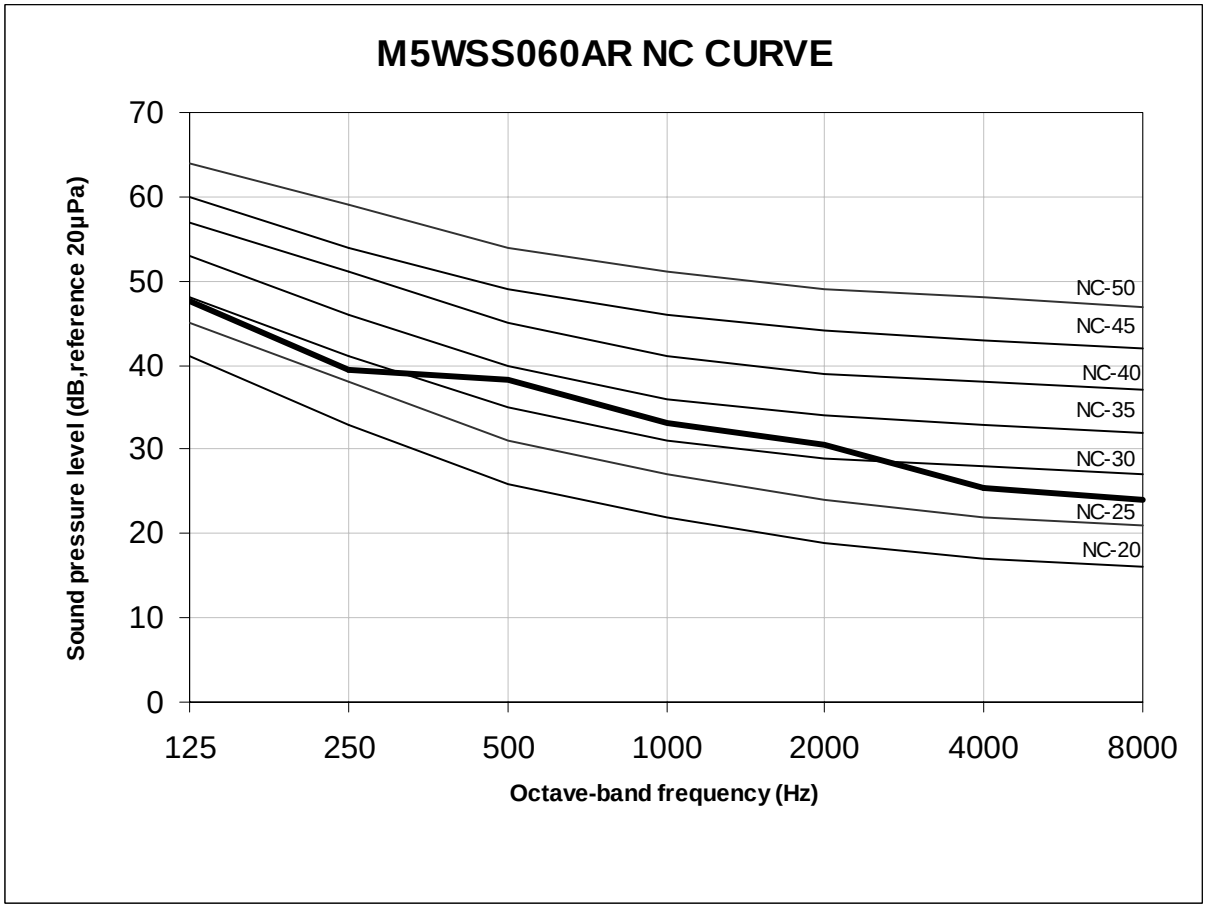

M5WSS020AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20

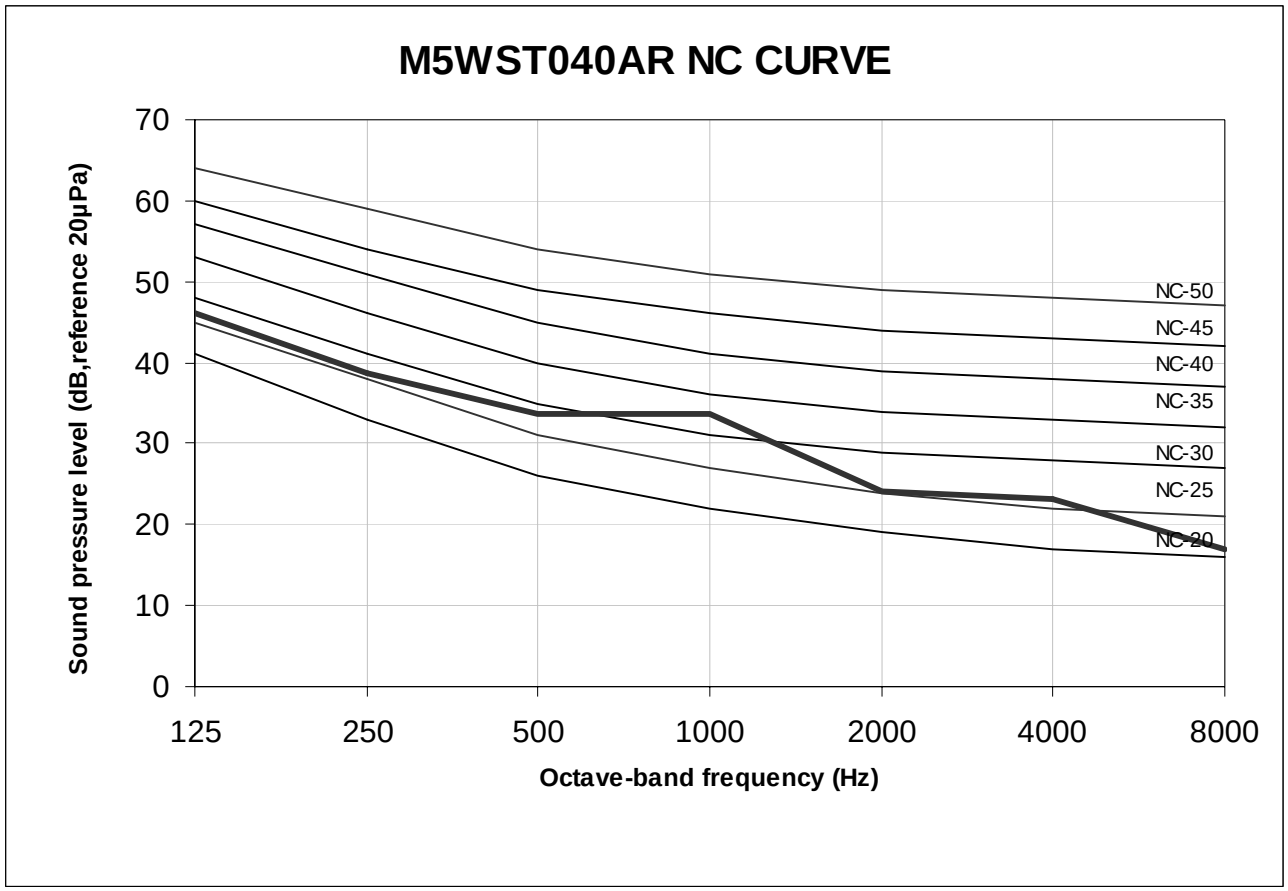

M5WSS025AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5WSS030AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5WSS040AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5WSS050AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5WSS060AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5WST040AR NC CURVE
Sound pressure level (dB,reference 20µPa)
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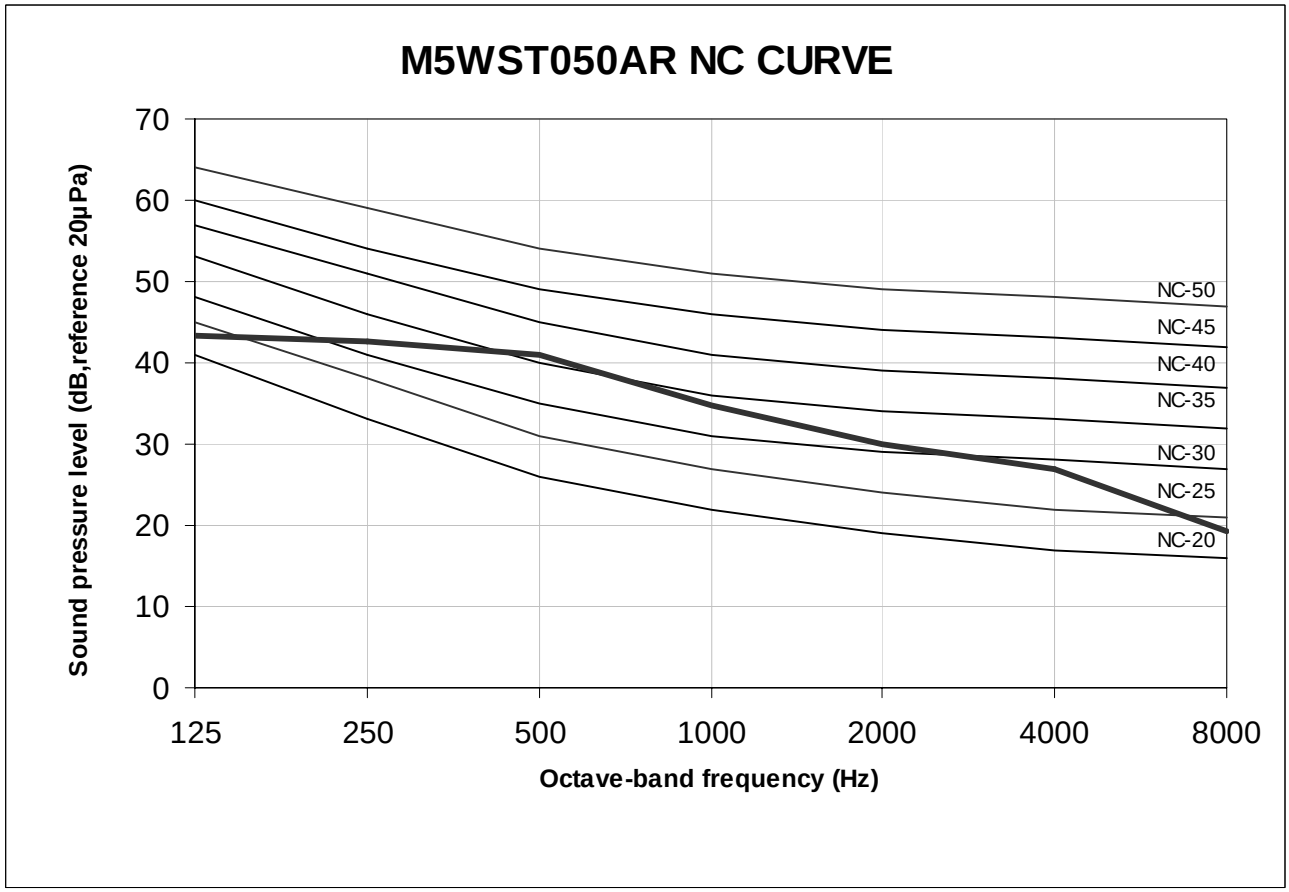
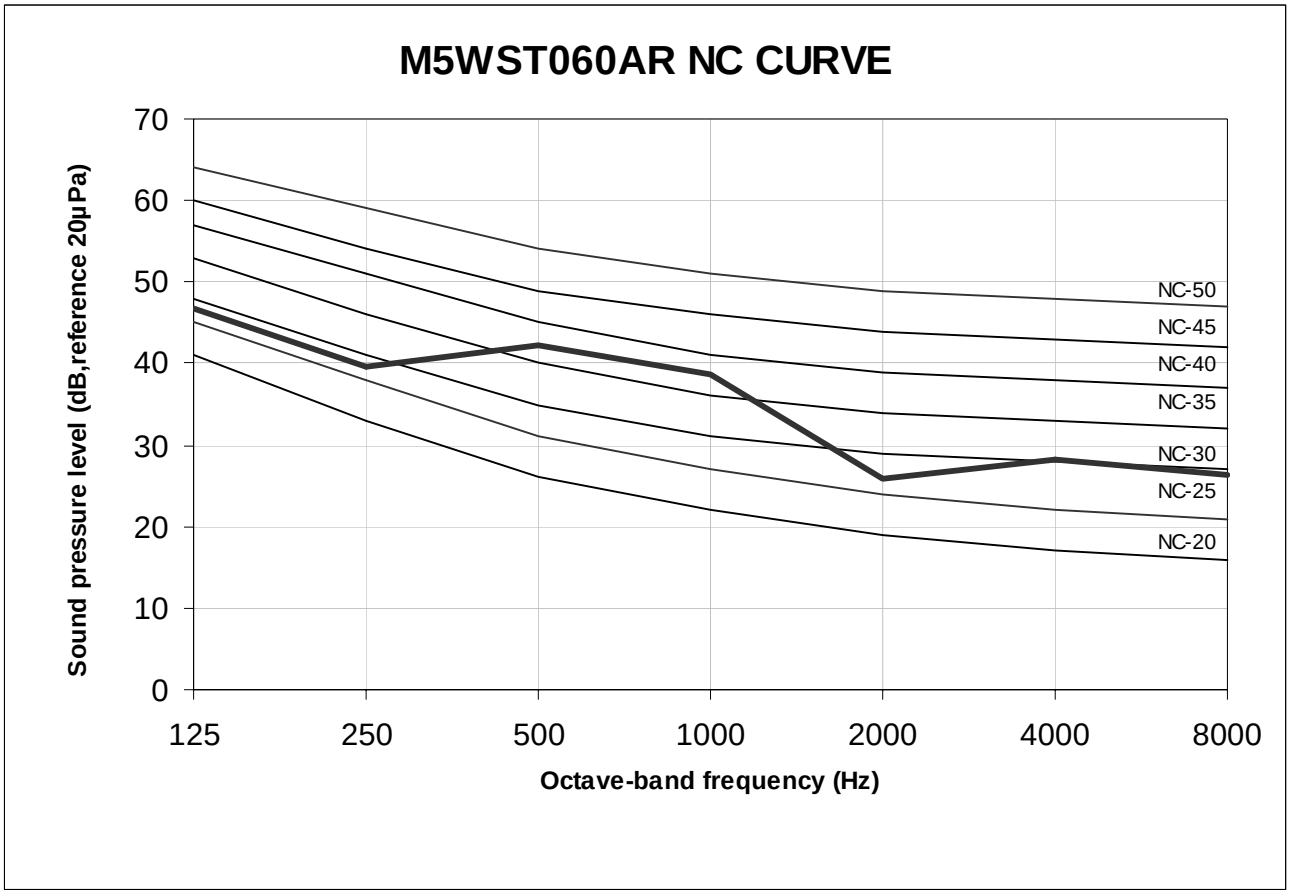
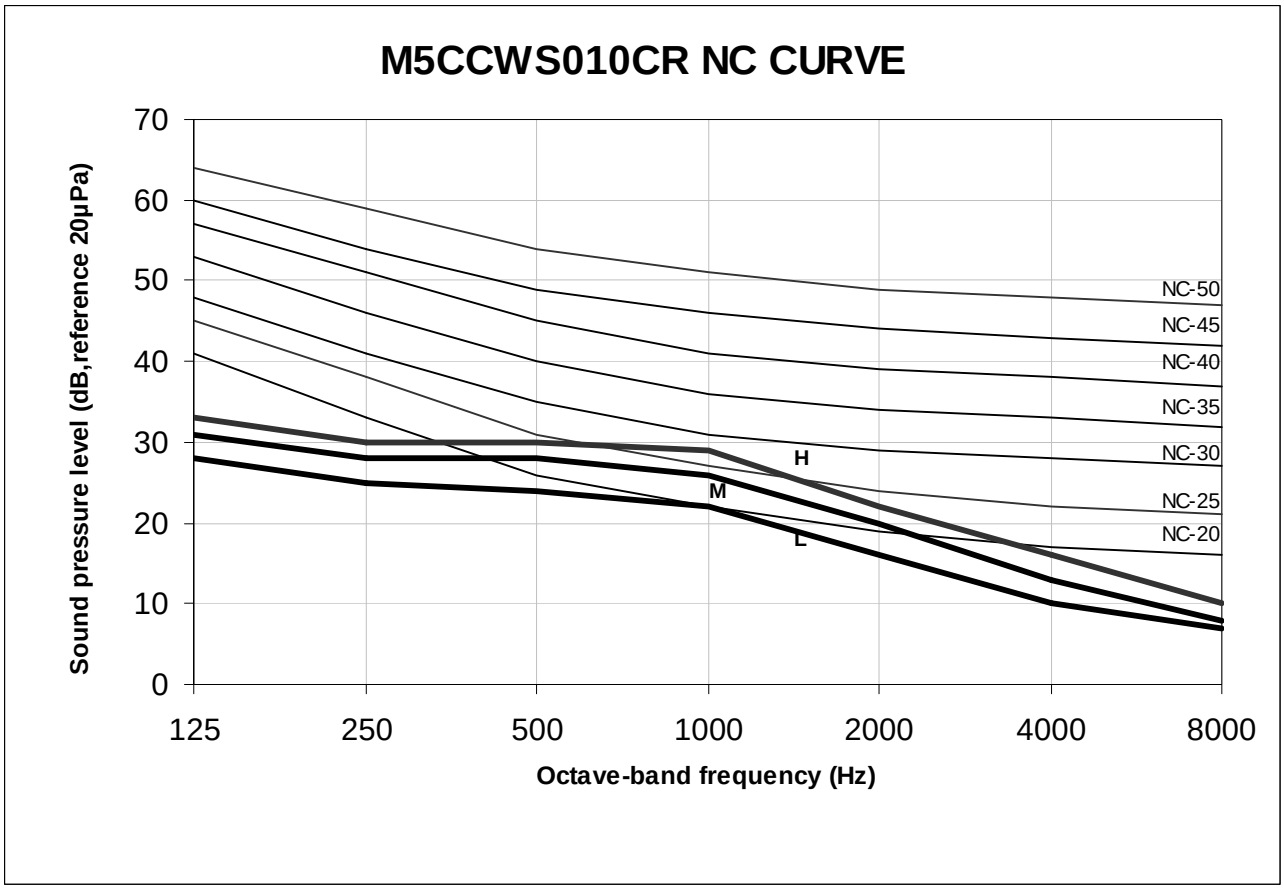
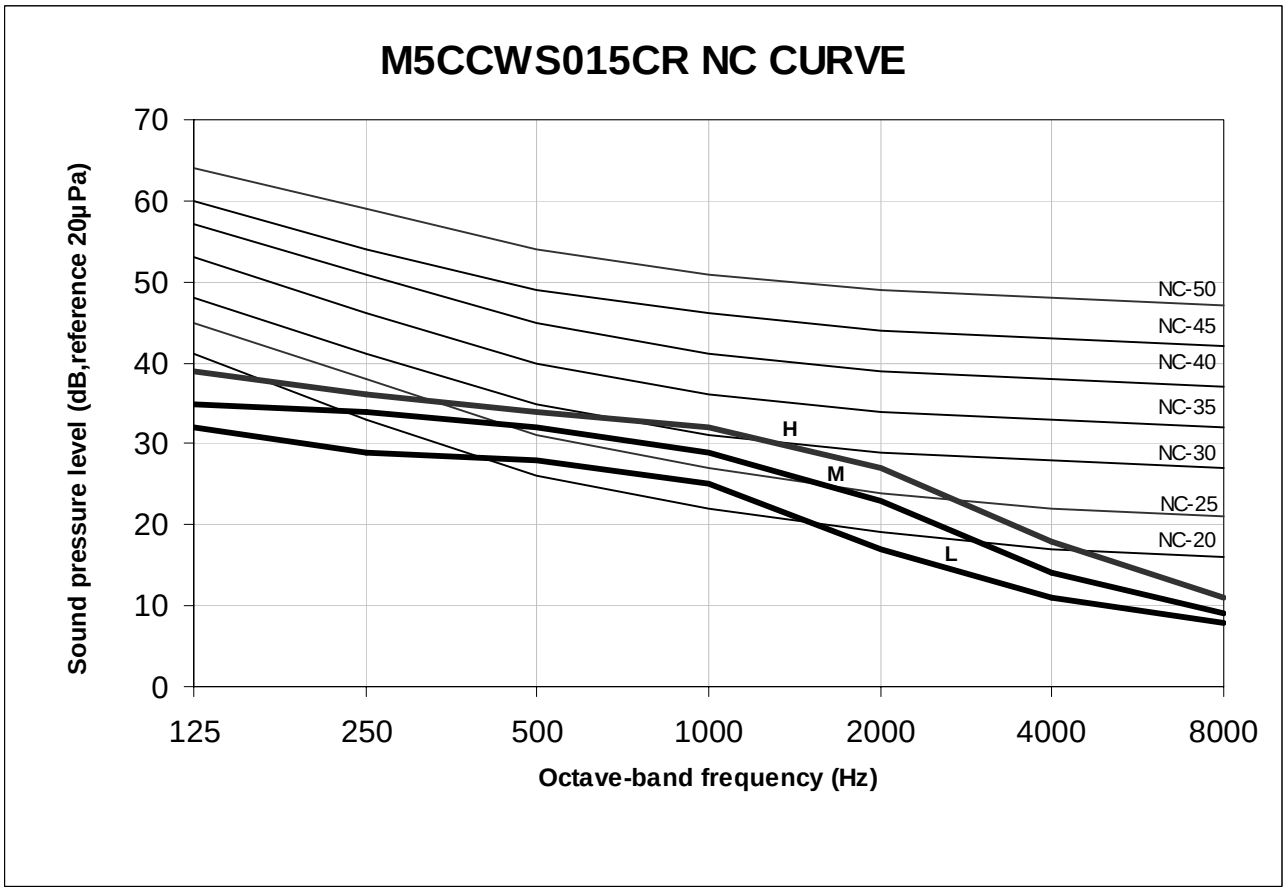
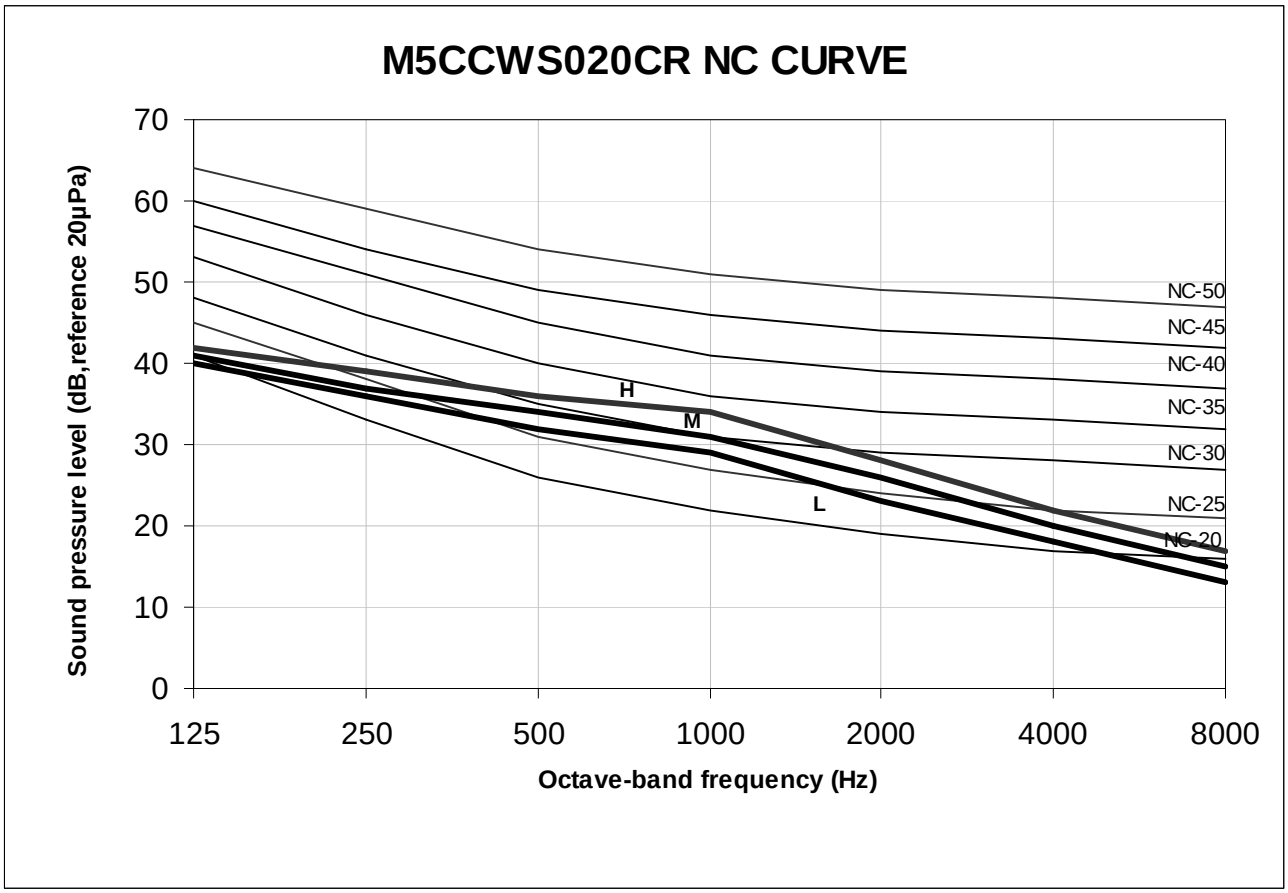
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20

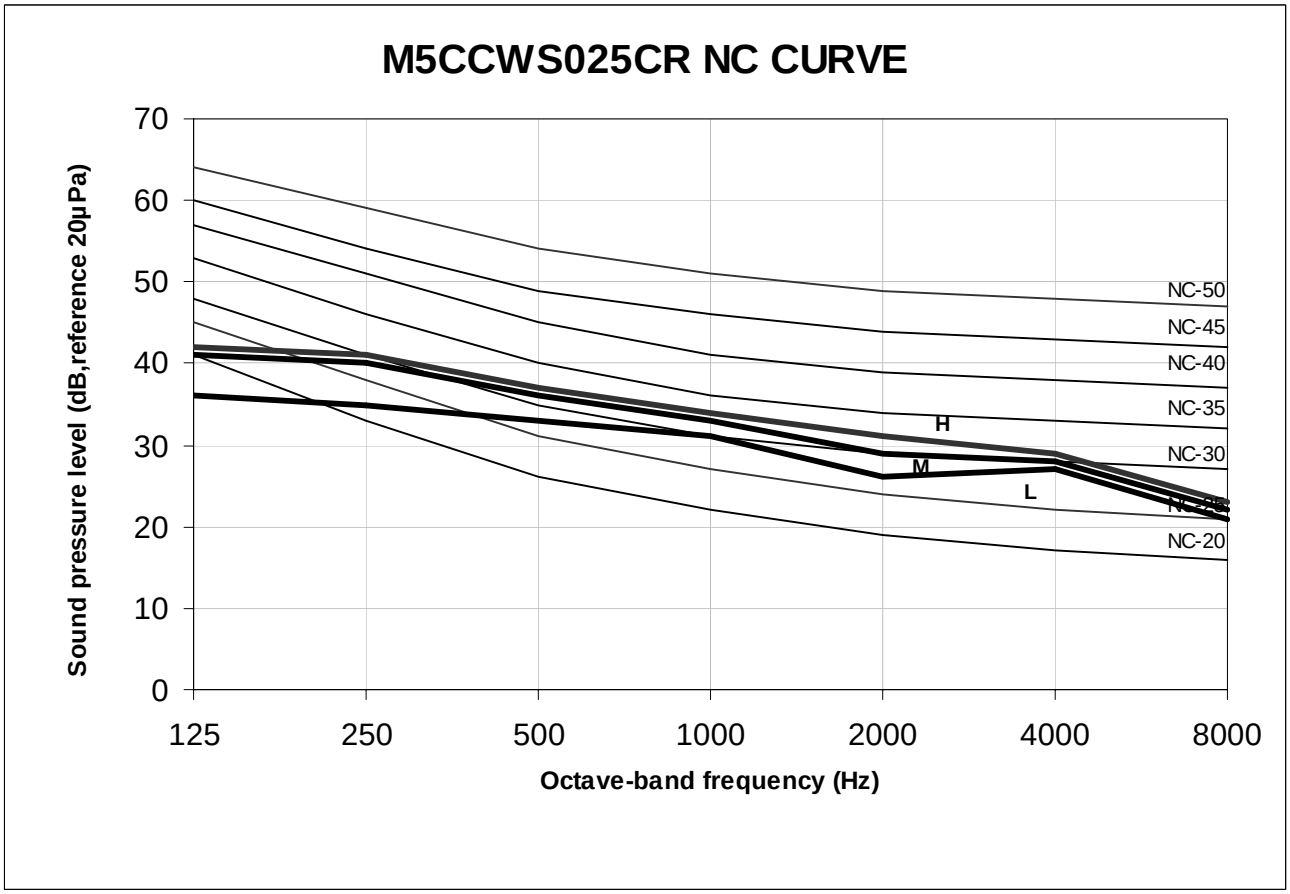

M5WST050AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5WST060AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5CCWS010CR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5CCWS015CR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5CCWS020CR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5CCWS025CR NC CURVE
Sound pressure level (dB,reference 20µPa)
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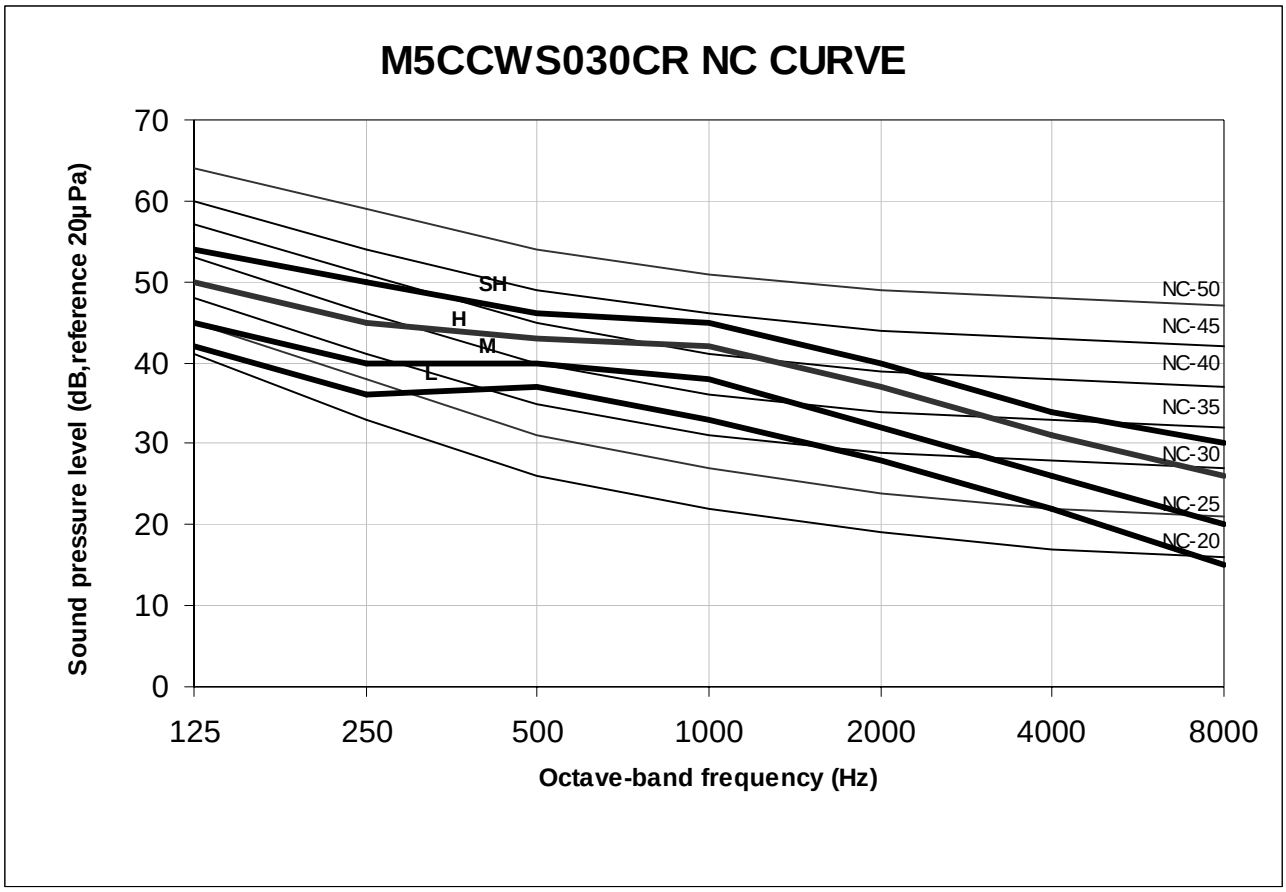
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-20
H
M
L


M5CCWS030CR NC CURVE
Sound pressure level (dB,reference 20µPa)
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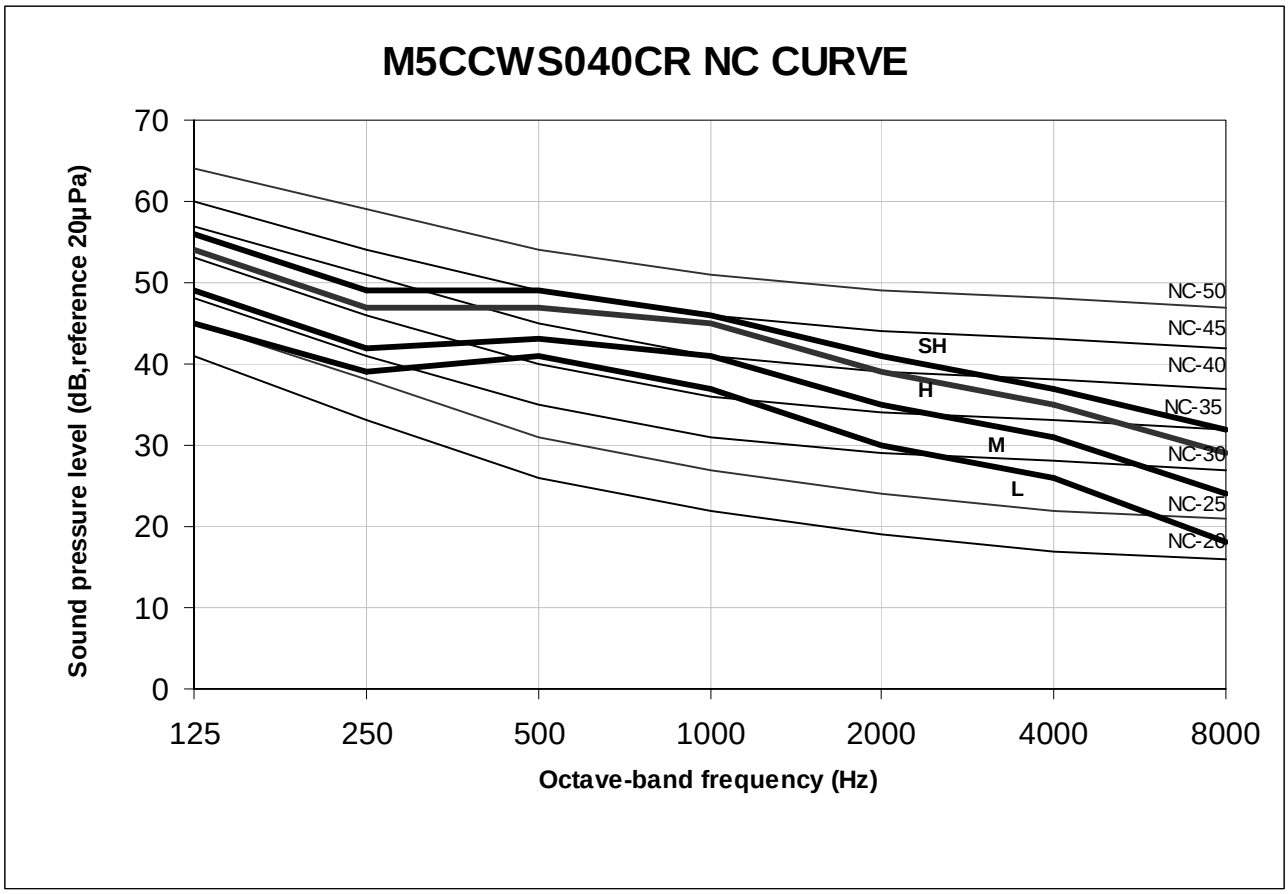
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
SH
H
M
L
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5CCWS040CR NC CURVE
Sound pressure level (dB,reference 20µPa)
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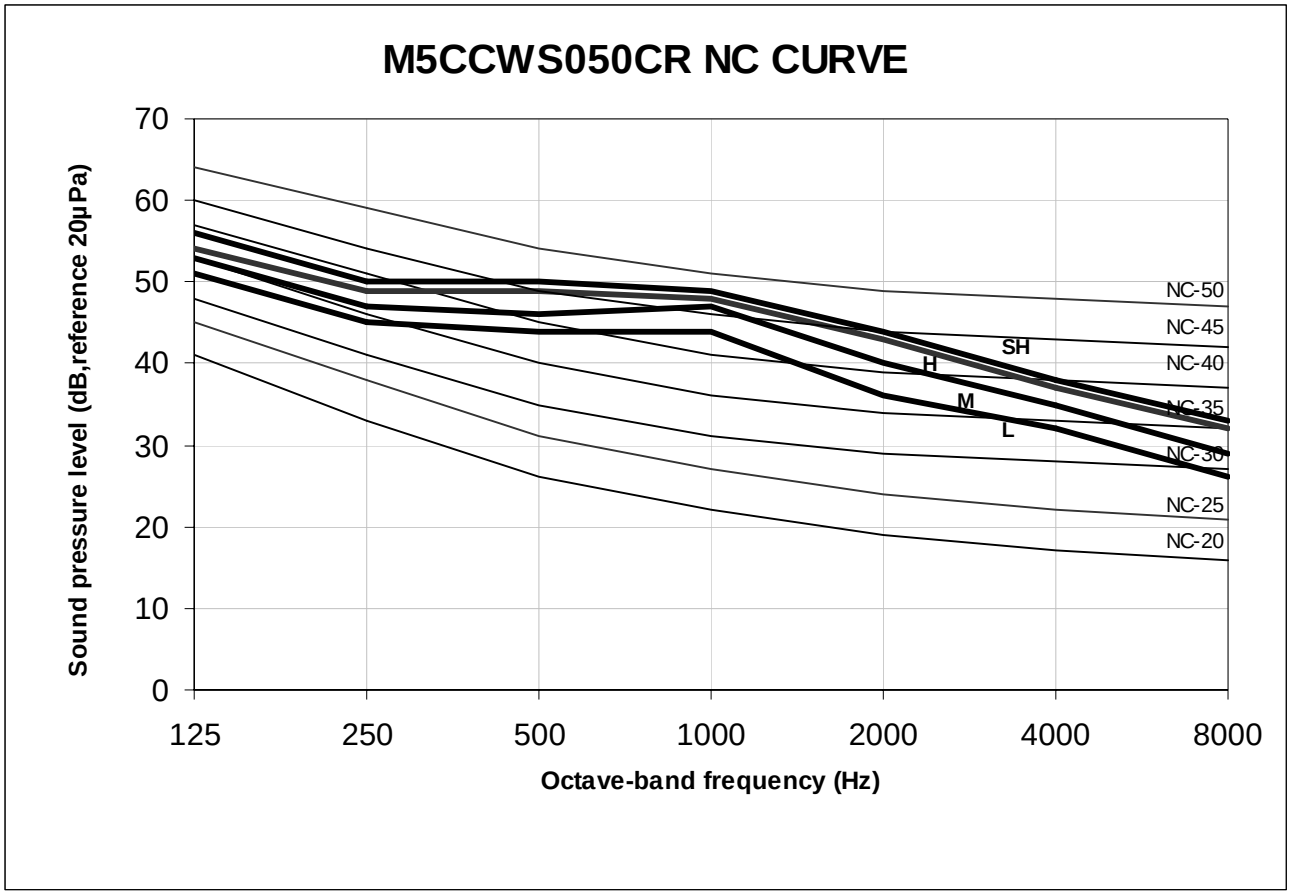
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
SH
H
M
L
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5CCWS050CR NC CURVE
Sound pressure level (dB,reference 20µPa)
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60
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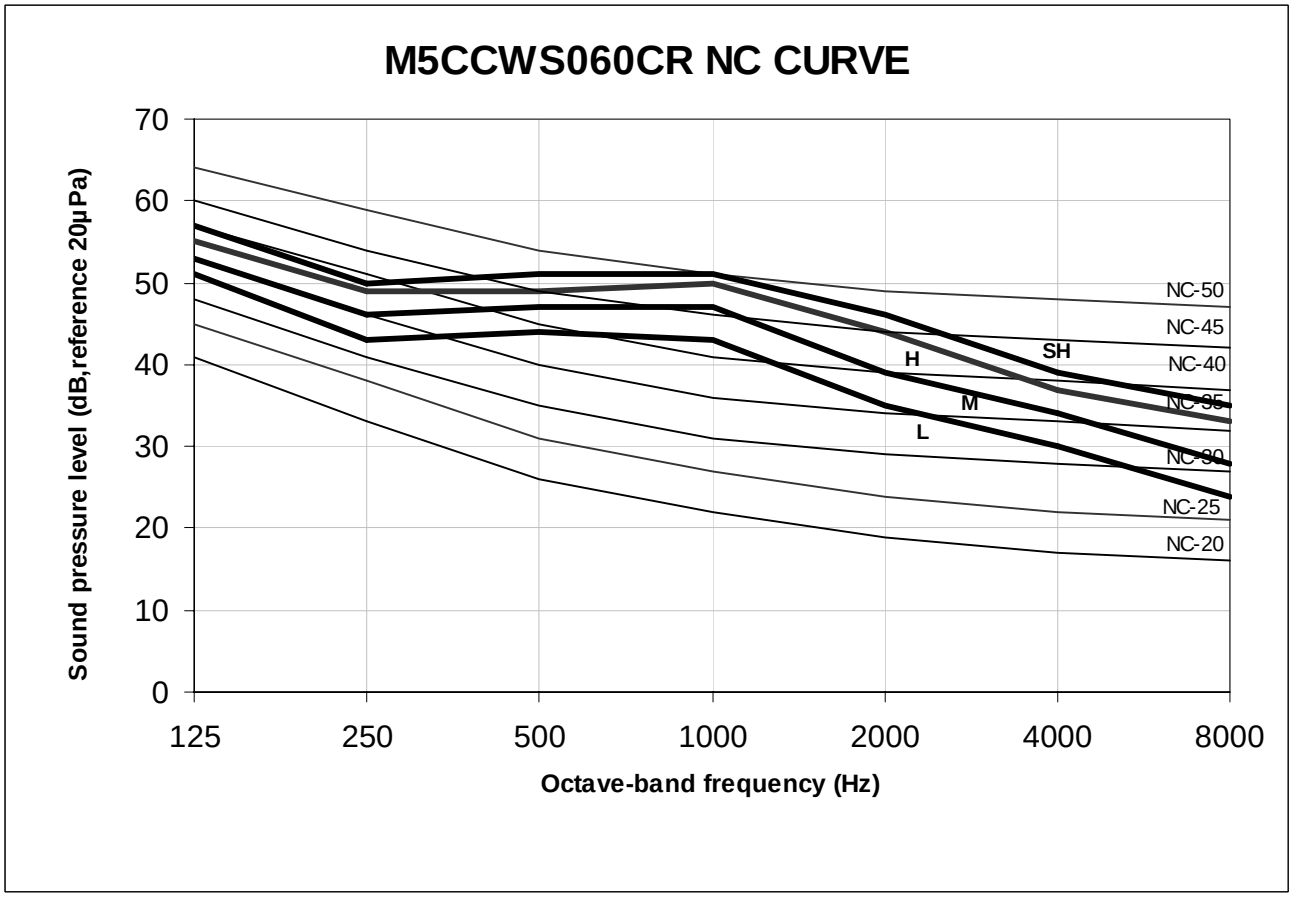
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
SH
H
M
L


M5CCWS060CR NC CURVE
Sound pressure level (dB,reference 20µPa)
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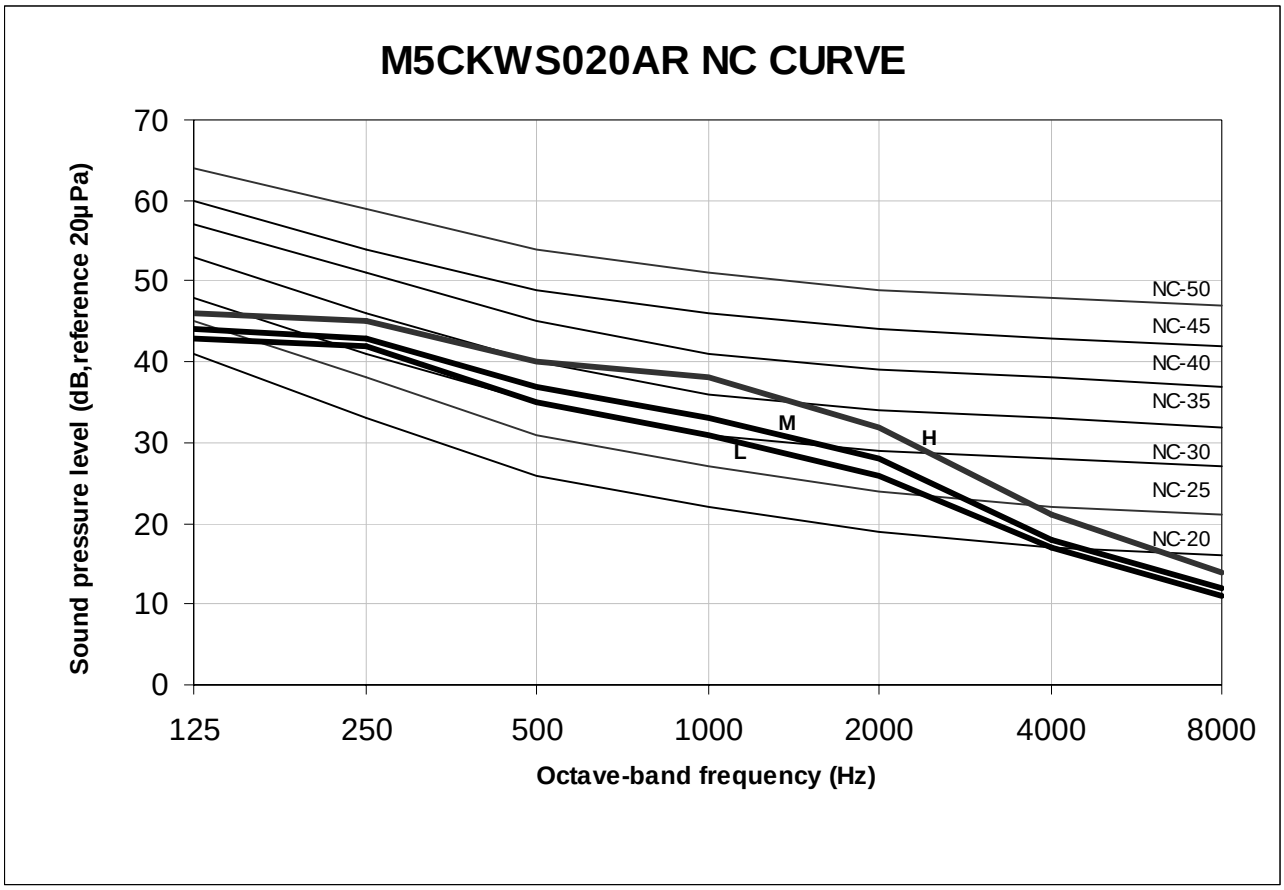
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
SH
H
M
L


M5CKWS020AR NC CURVE
Sound pressure level (dB,reference 20µPa)
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60
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30
20
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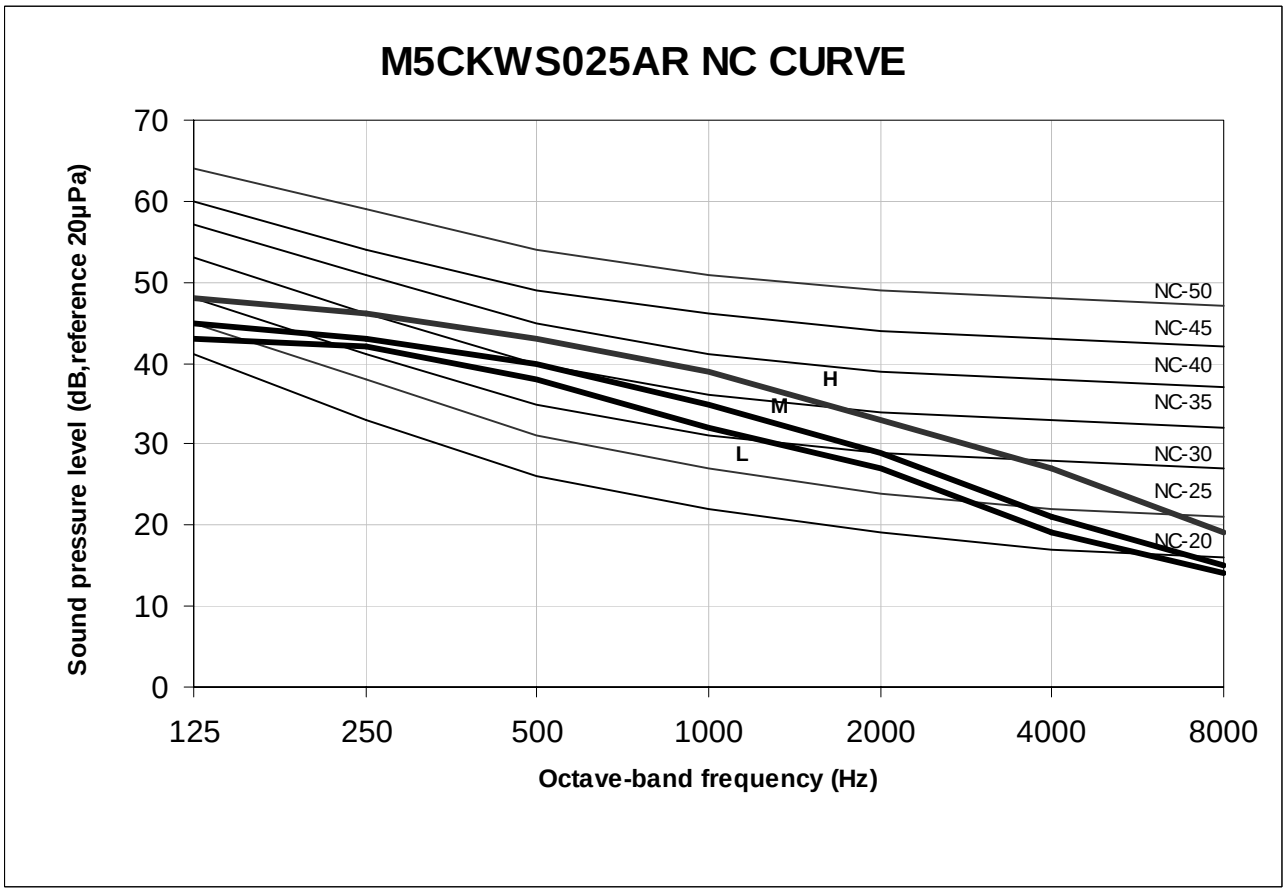
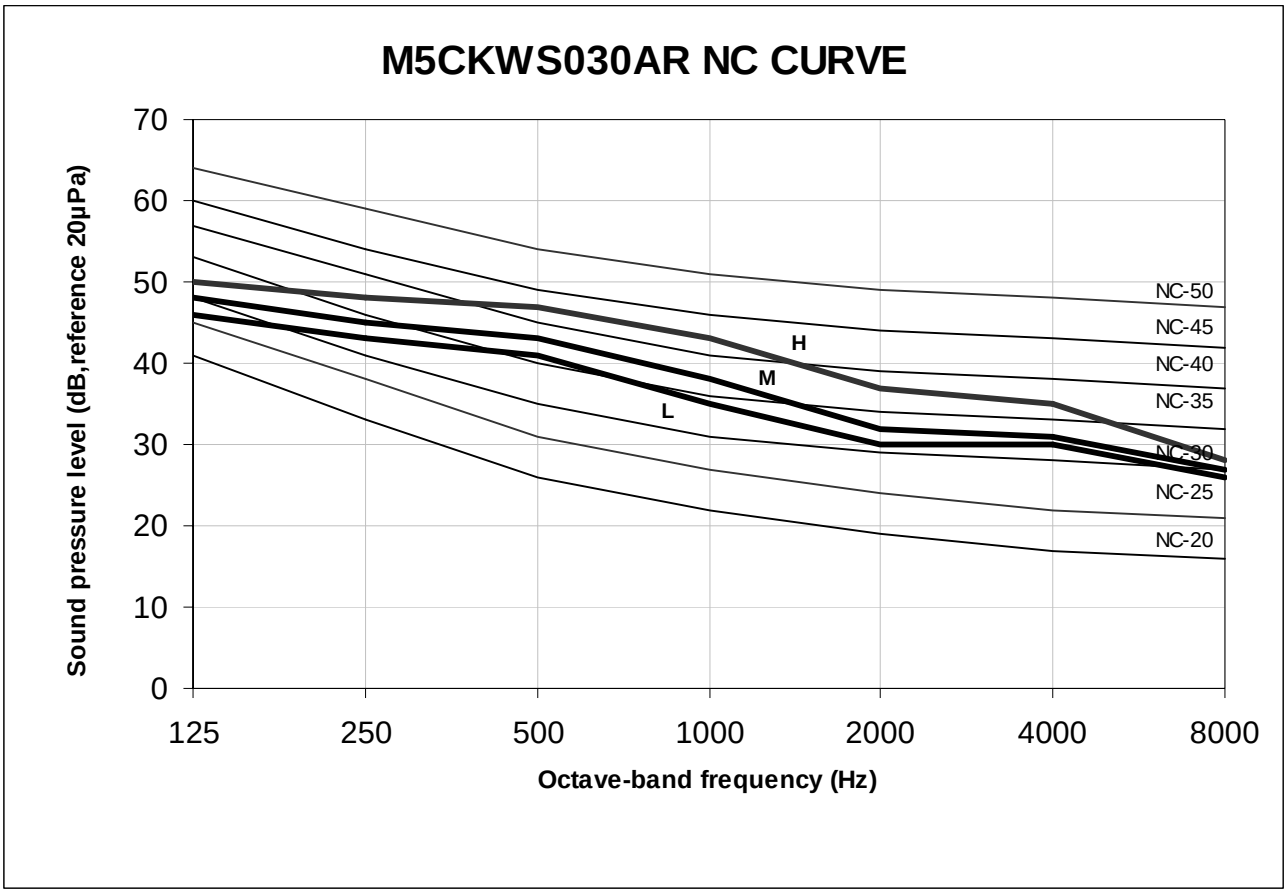
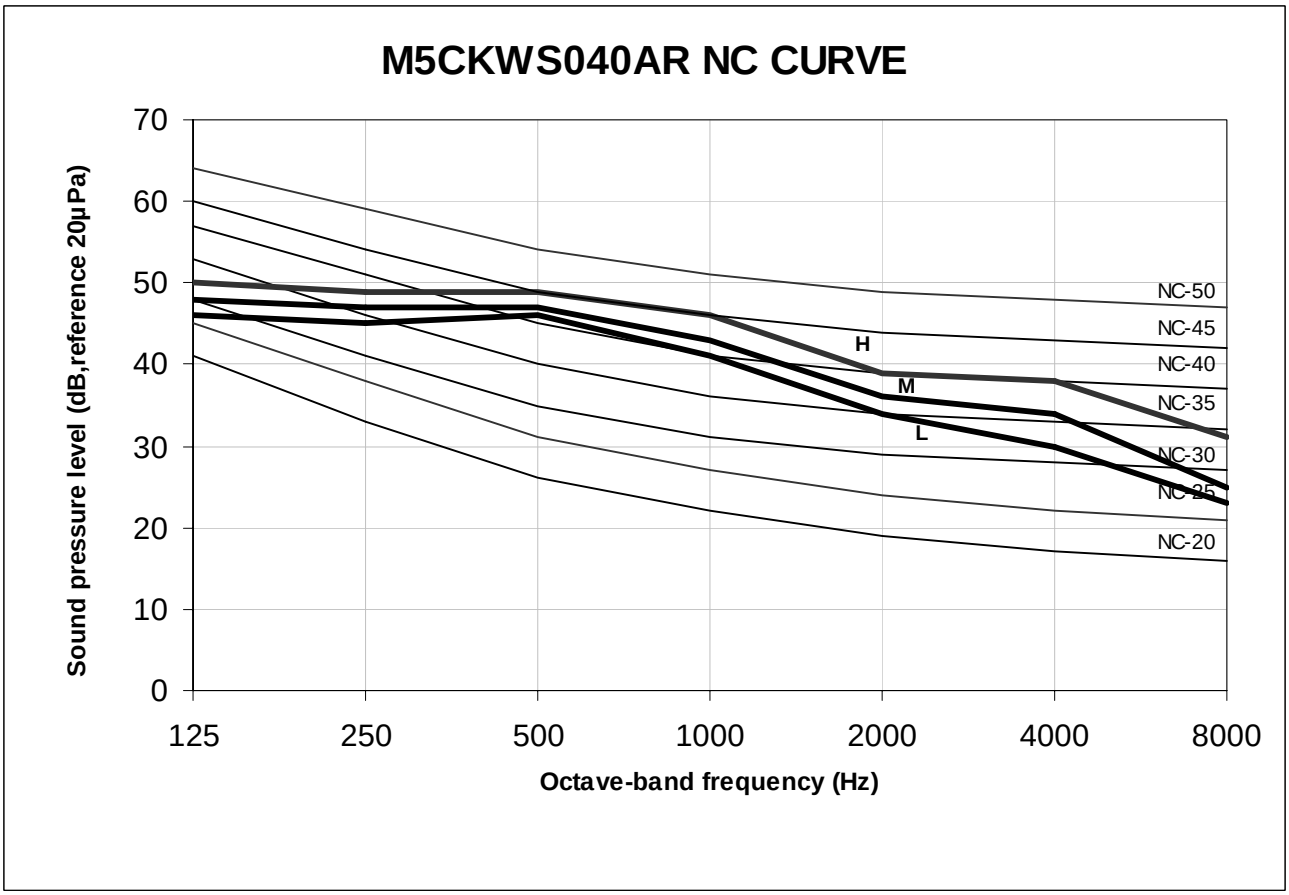
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
M
L
H


M5CKWS025AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5CKWS030AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5CKWS040AR NC CURVE
Sound pressure level (dB,reference 20µPa)
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60
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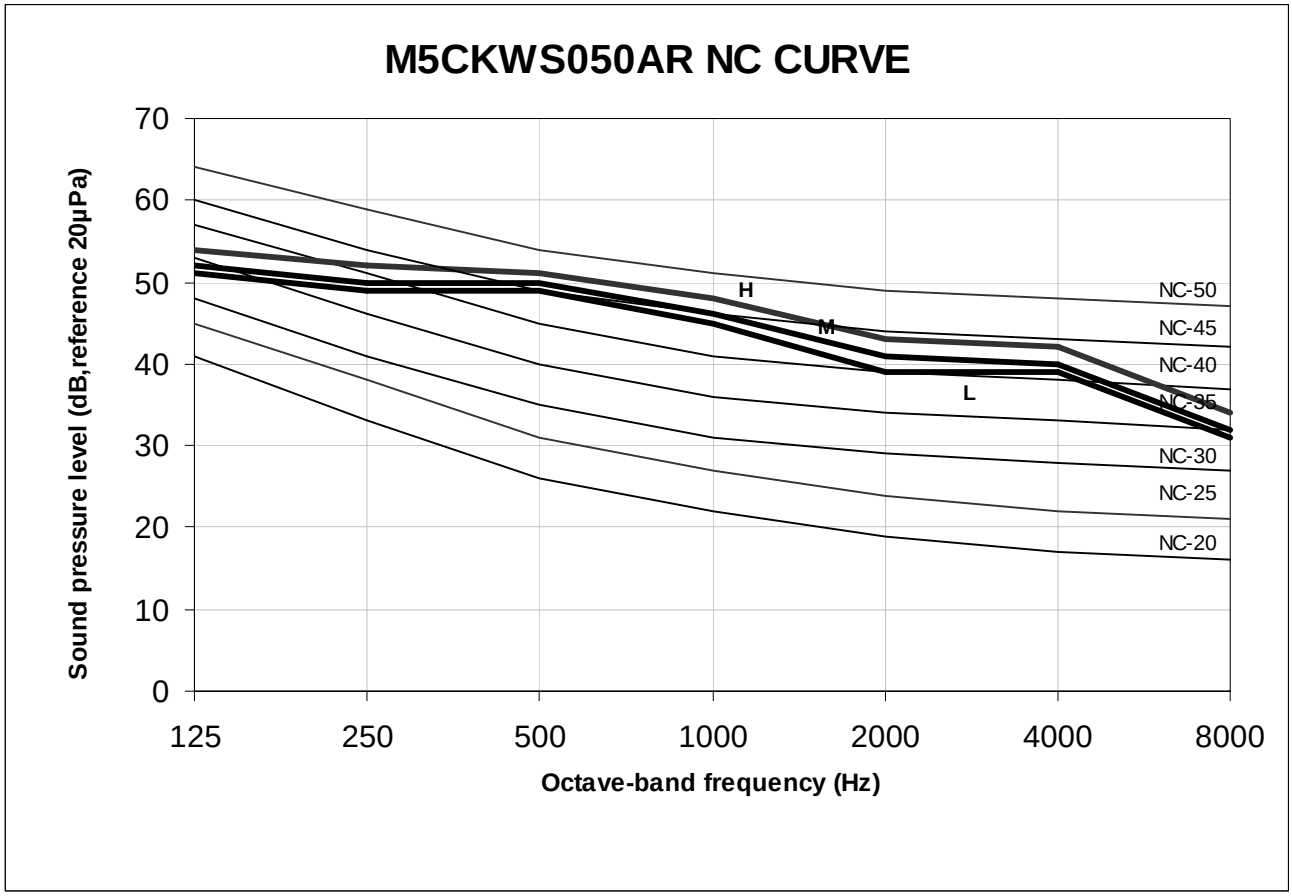
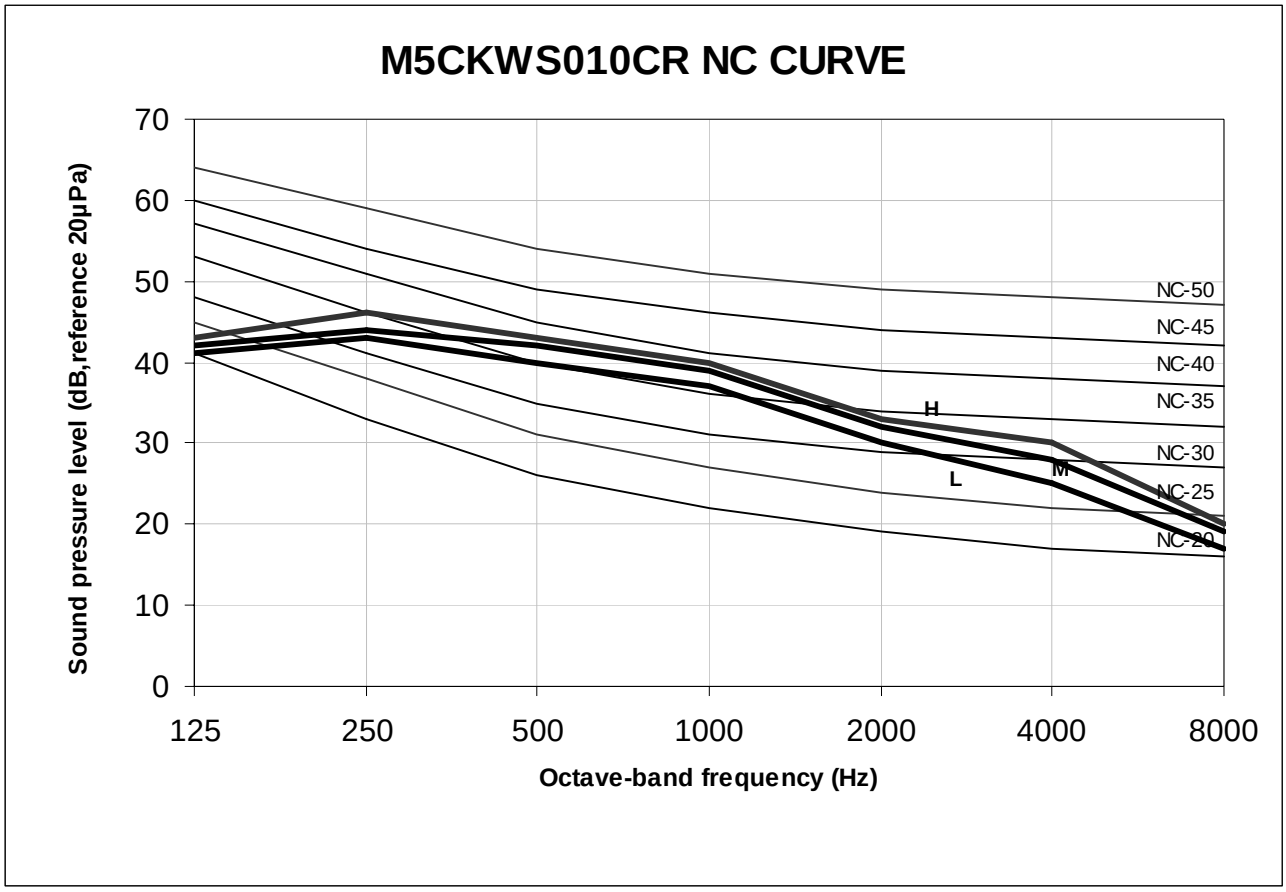
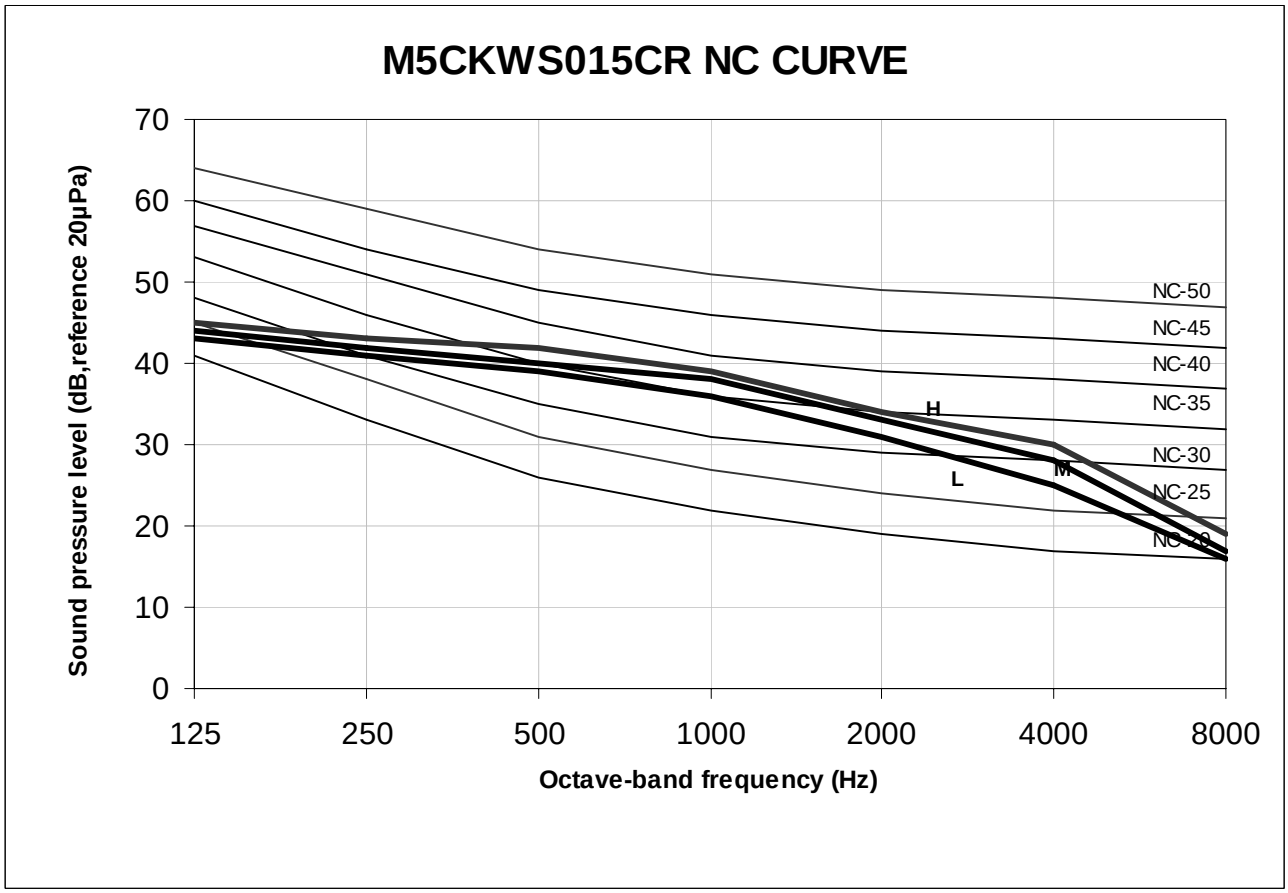
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5CKWS050AR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
H
M
L
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20


M5CKWS010CR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5CKWS015CR NC CURVE
Sound pressure level (dB,reference 20µPa)
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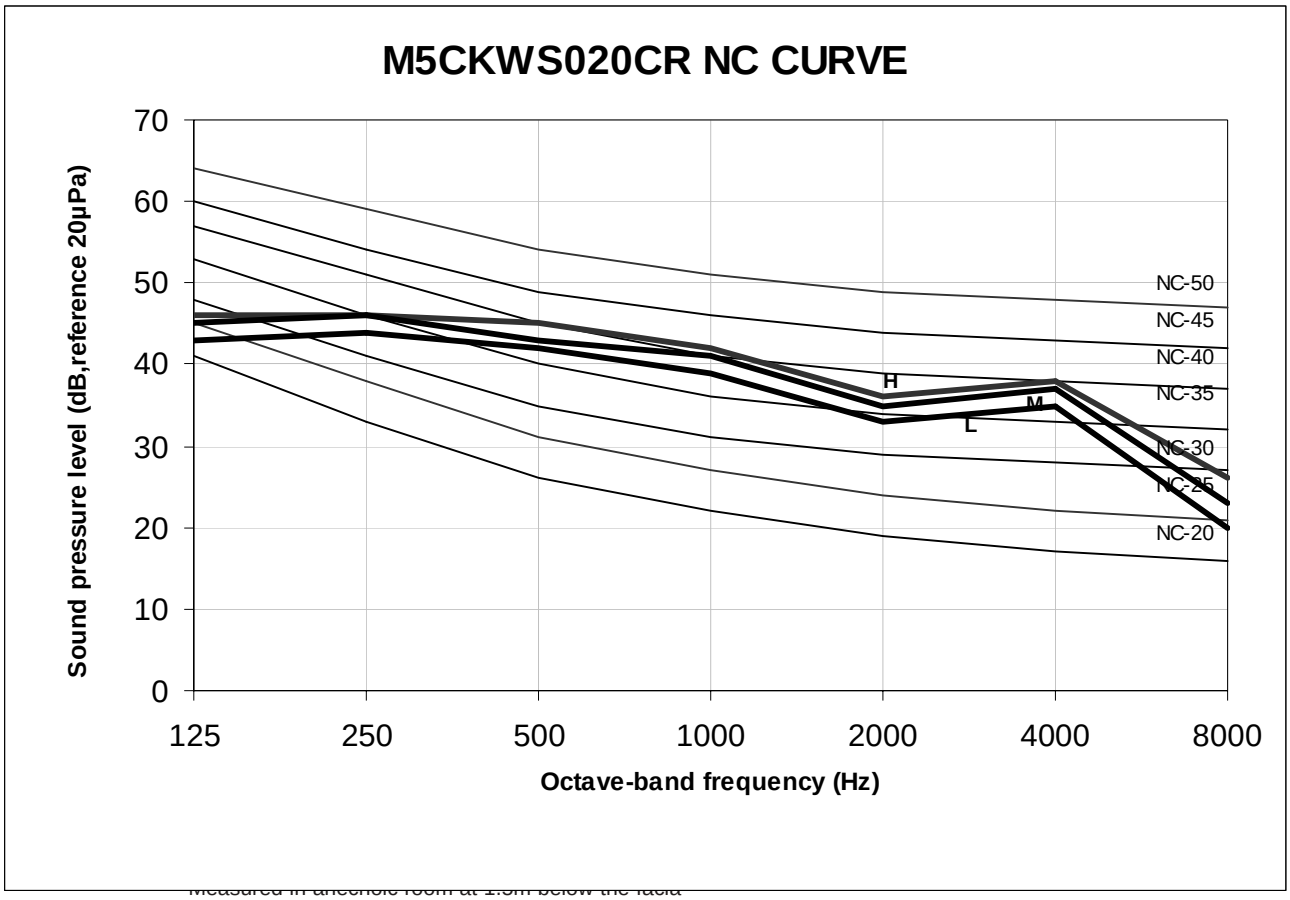
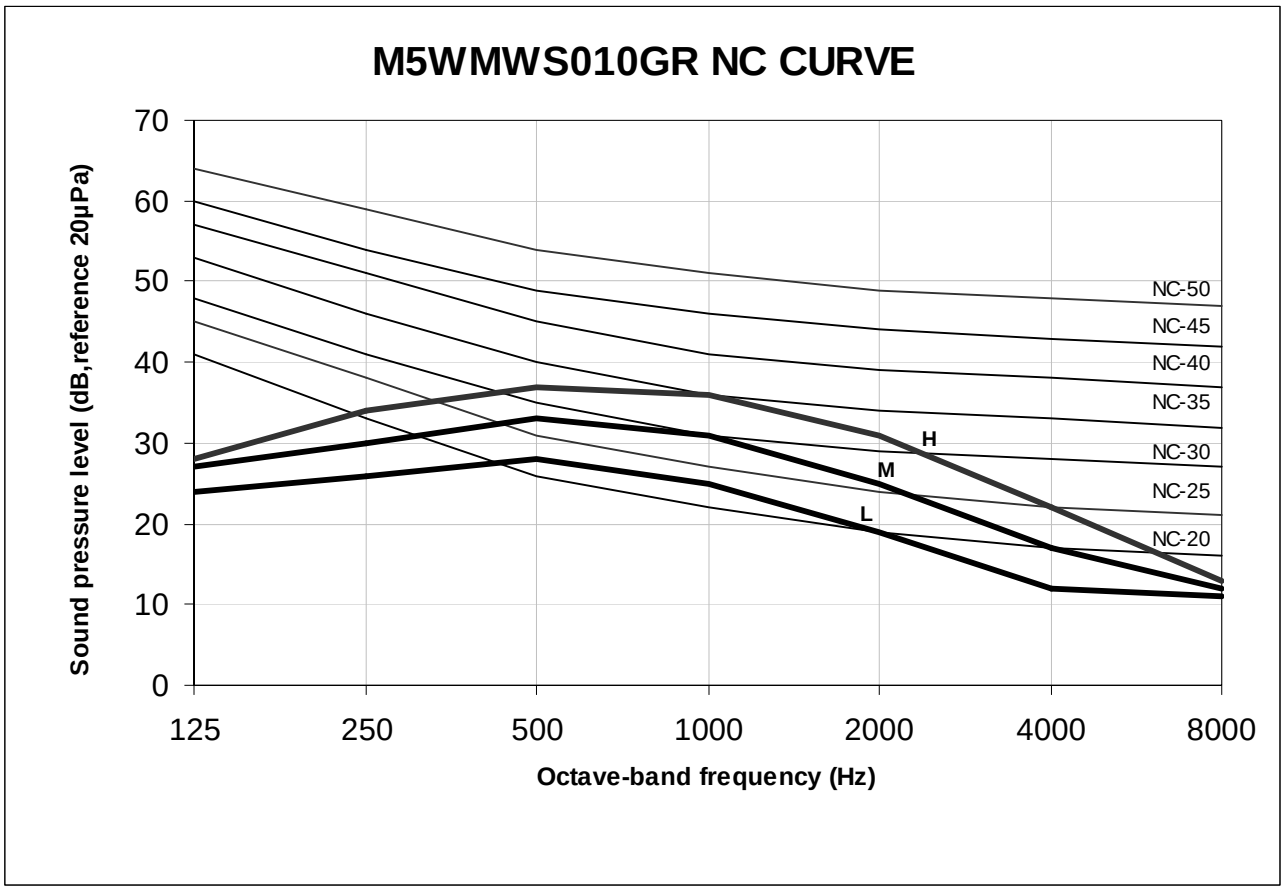
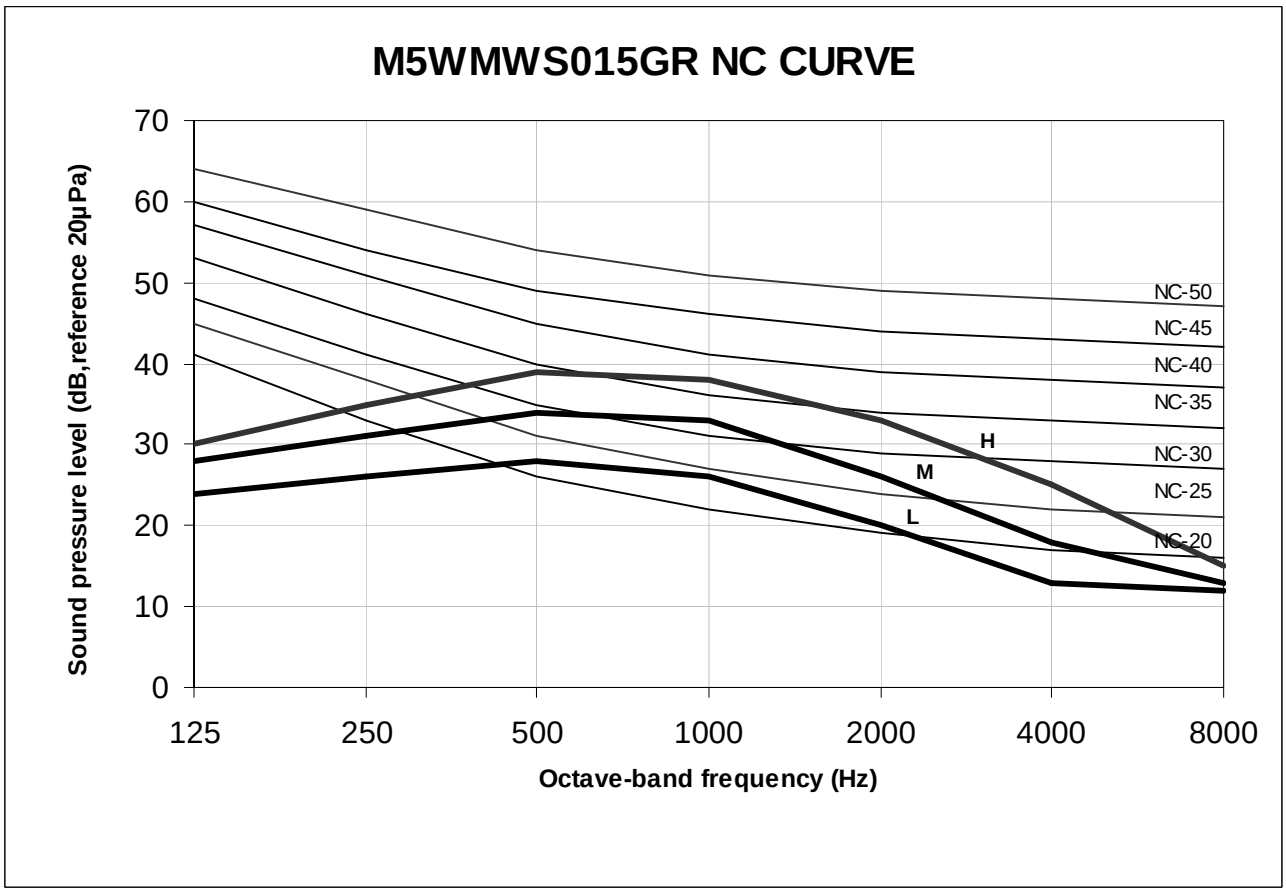
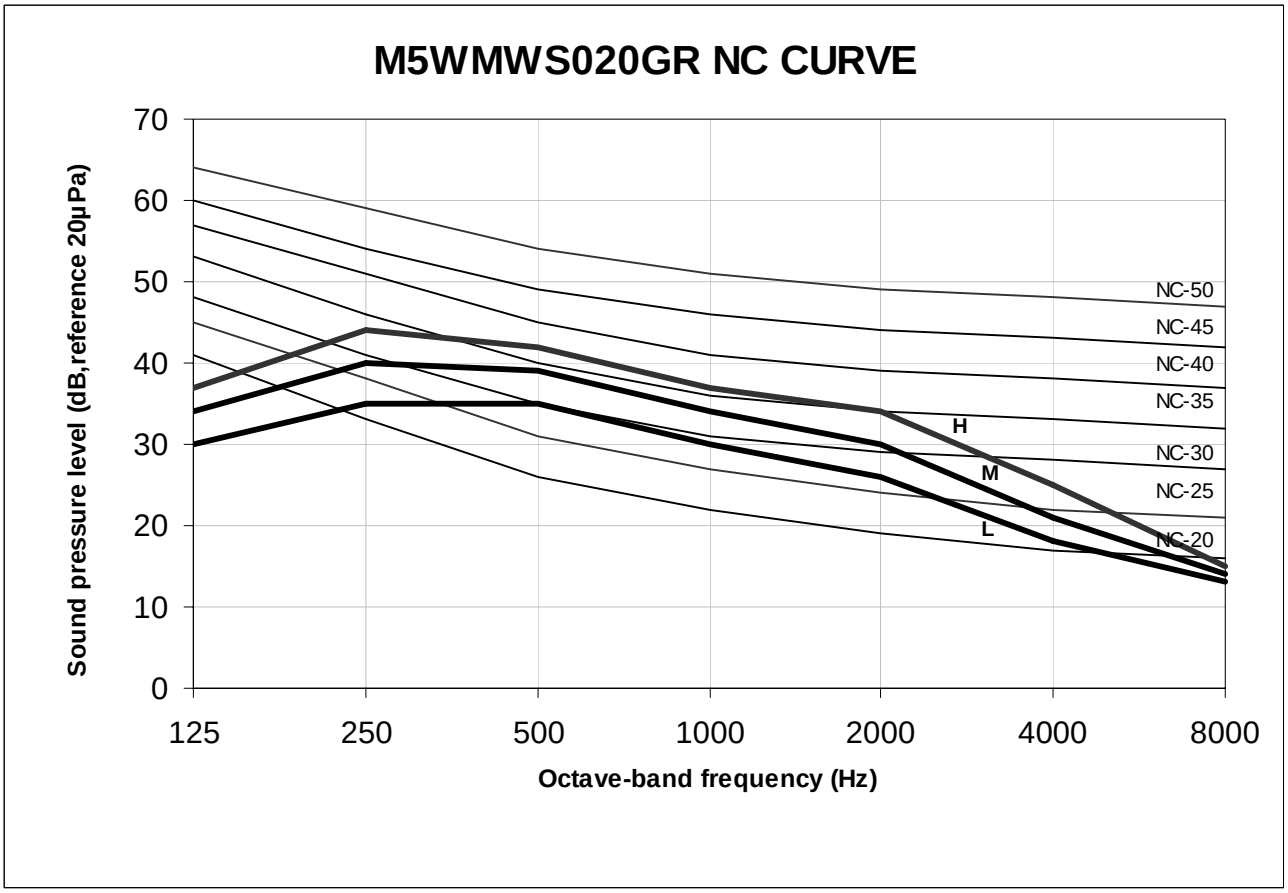
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L

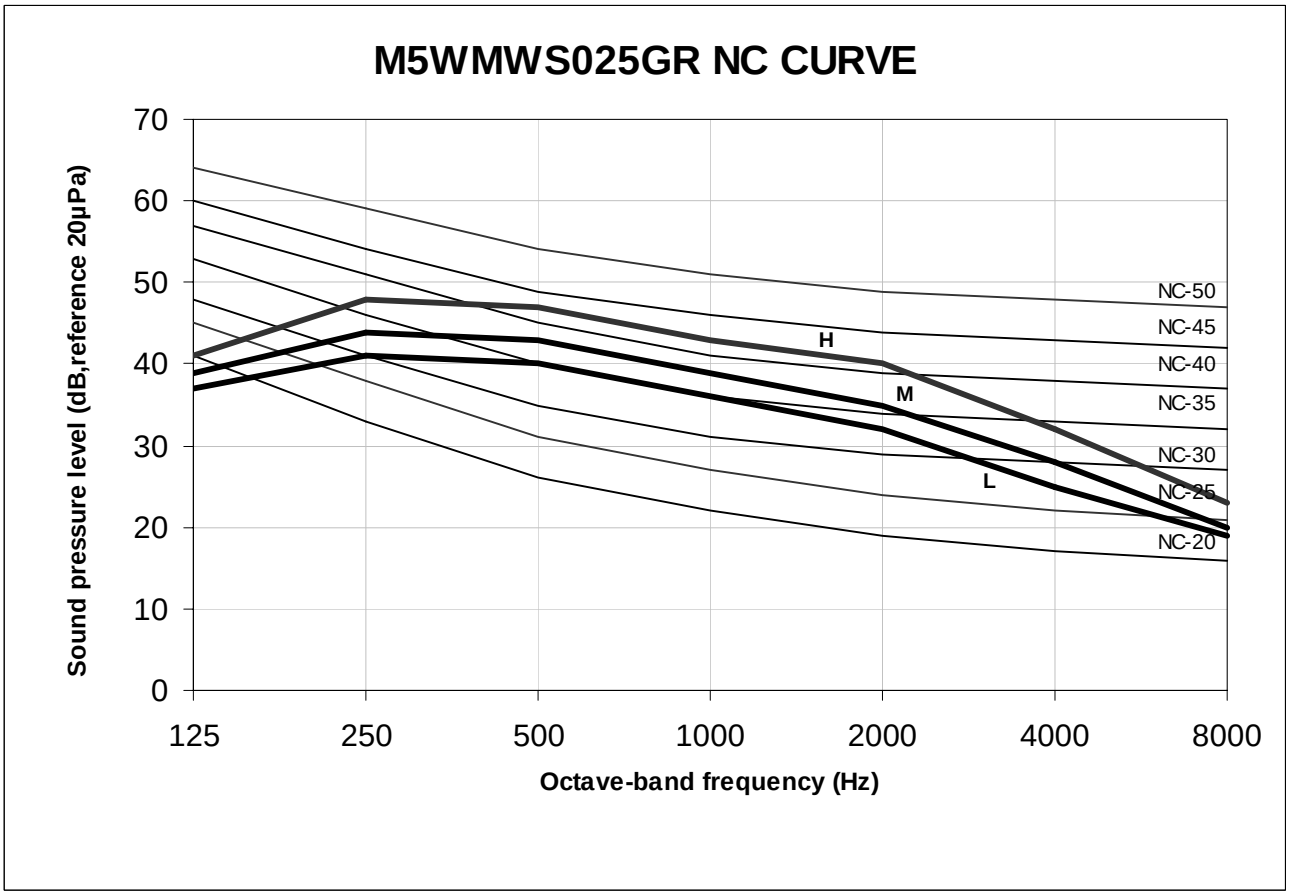


Measured in anechoic room at 1.5m below the fascia


M5WMWS010GR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5WMWS015GR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5WMWS020GR NC CURVE
Sound pressure level (dB,reference 20µPa)
70
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L


M5WMWS025GR NC CURVE
Sound pressure level (dB,reference 20µPa)
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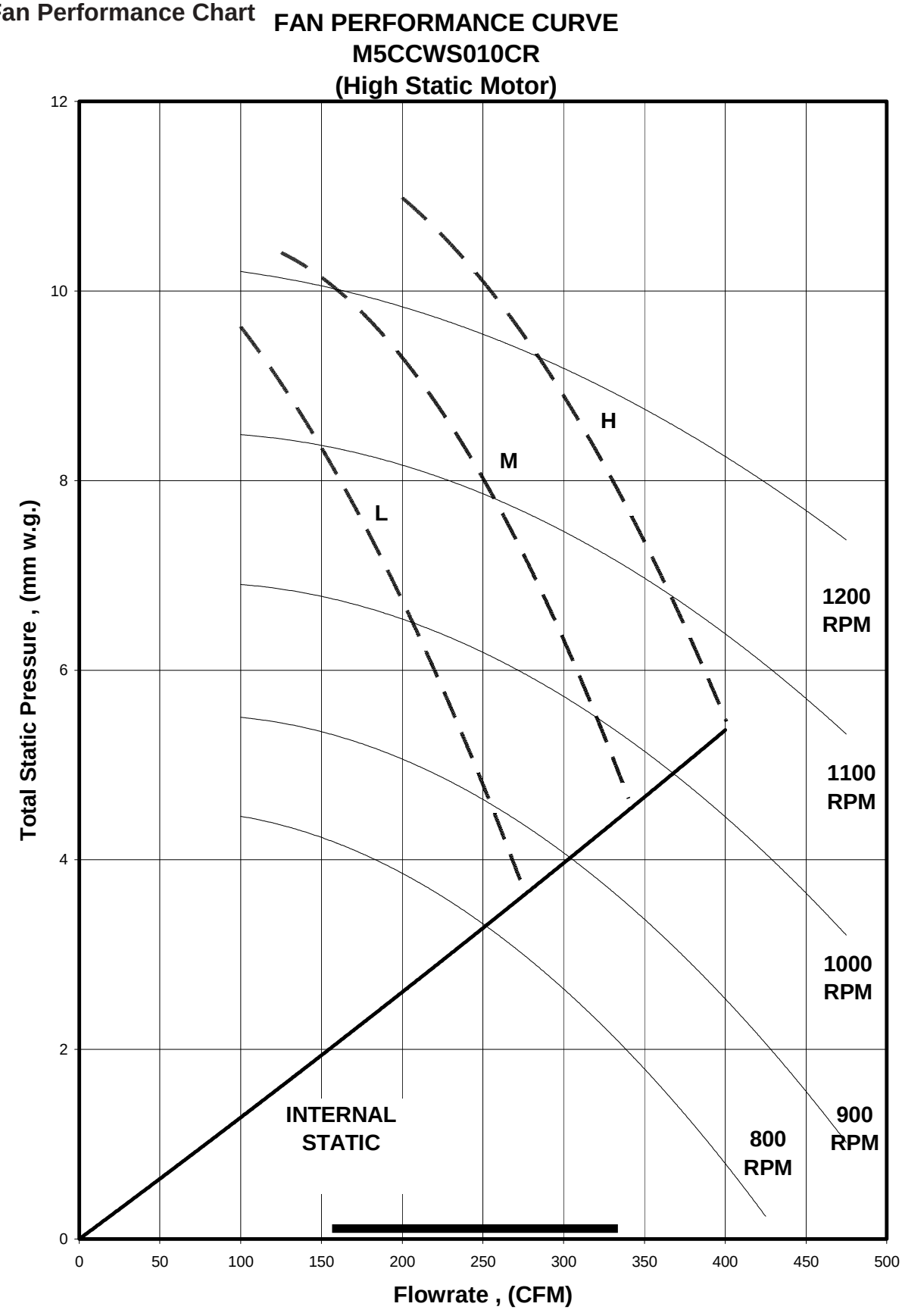
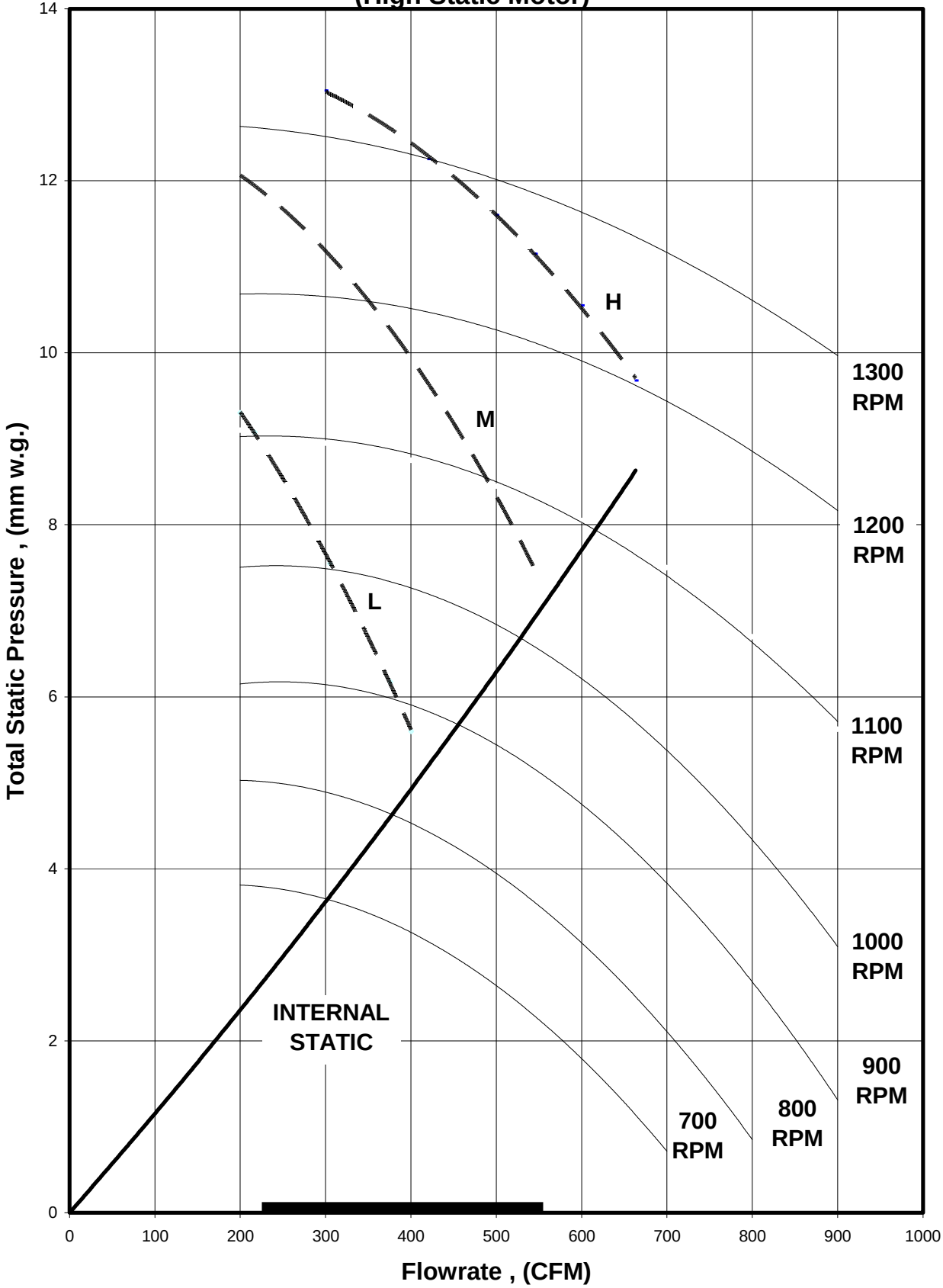
60
50
40
30
20
10
0
125
250
500
1000
2000
4000
8000
Octave-band frequency (Hz)
NC-50
NC-45
NC-40
NC-35
NC-30
NC-25
NC-20
H
M
L

Selection Process

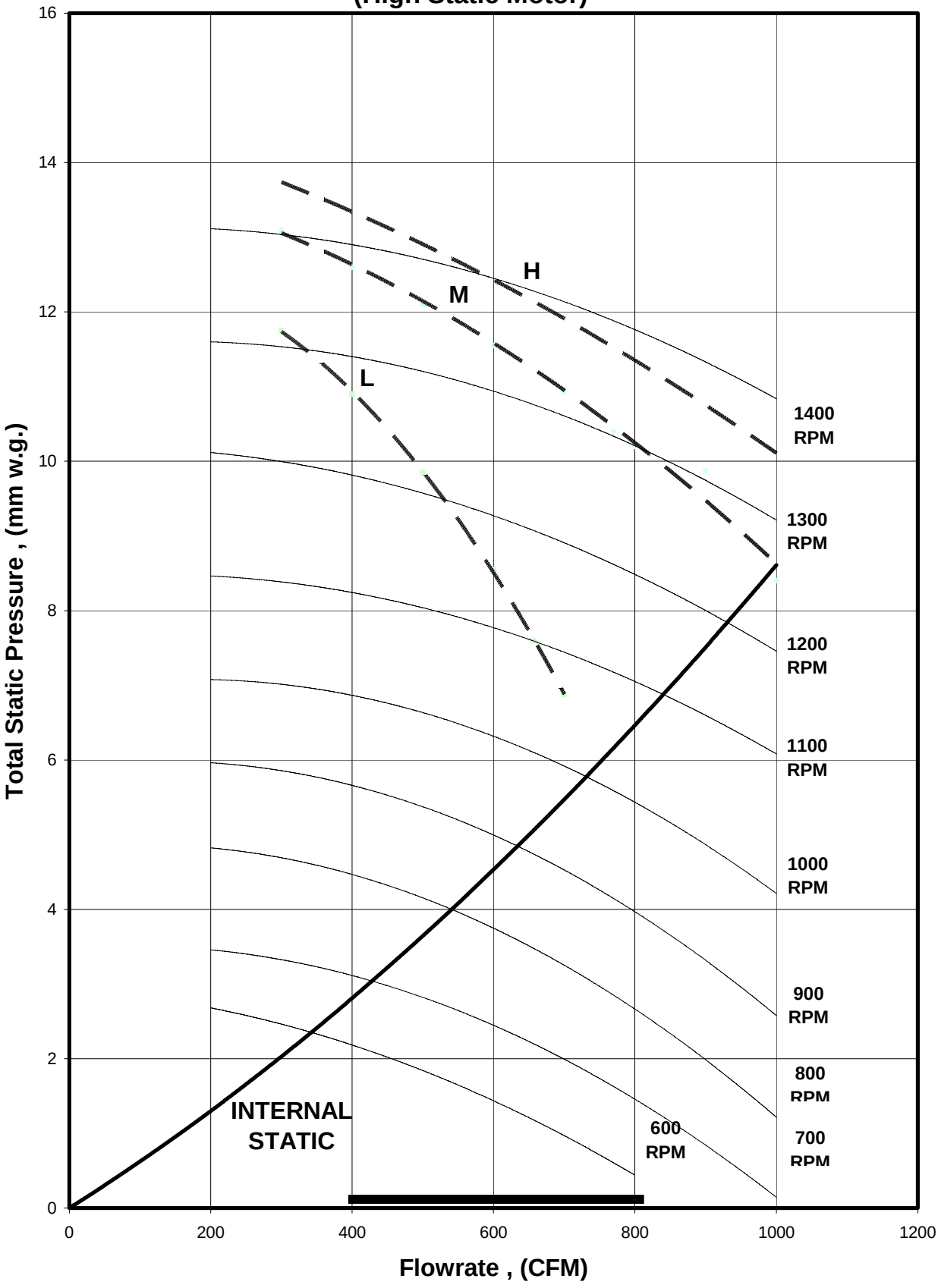
Fan Performance Chart



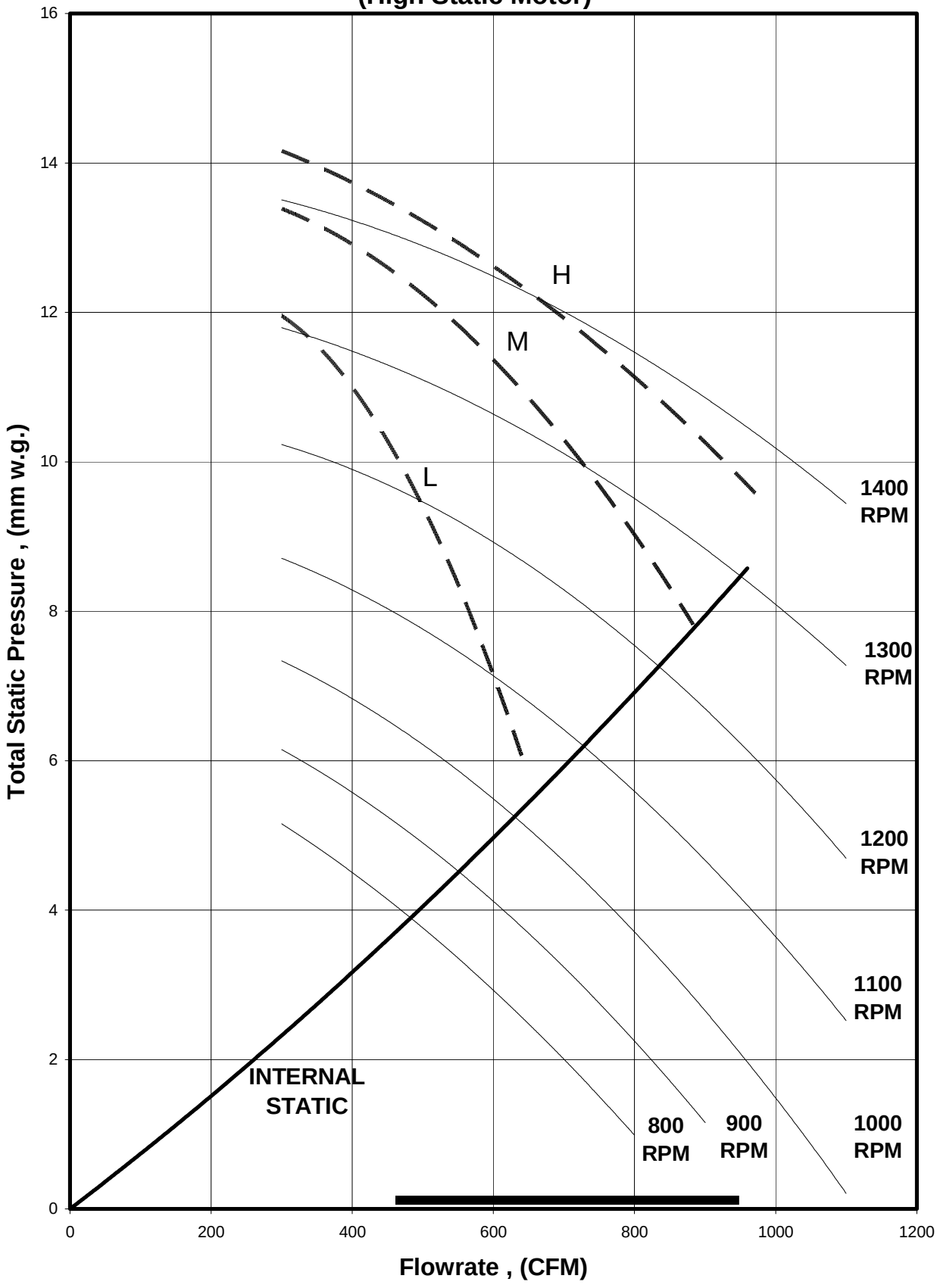
FAN PERFORMANCE CURVE
M5CCWS015CR
(High Static Motor)



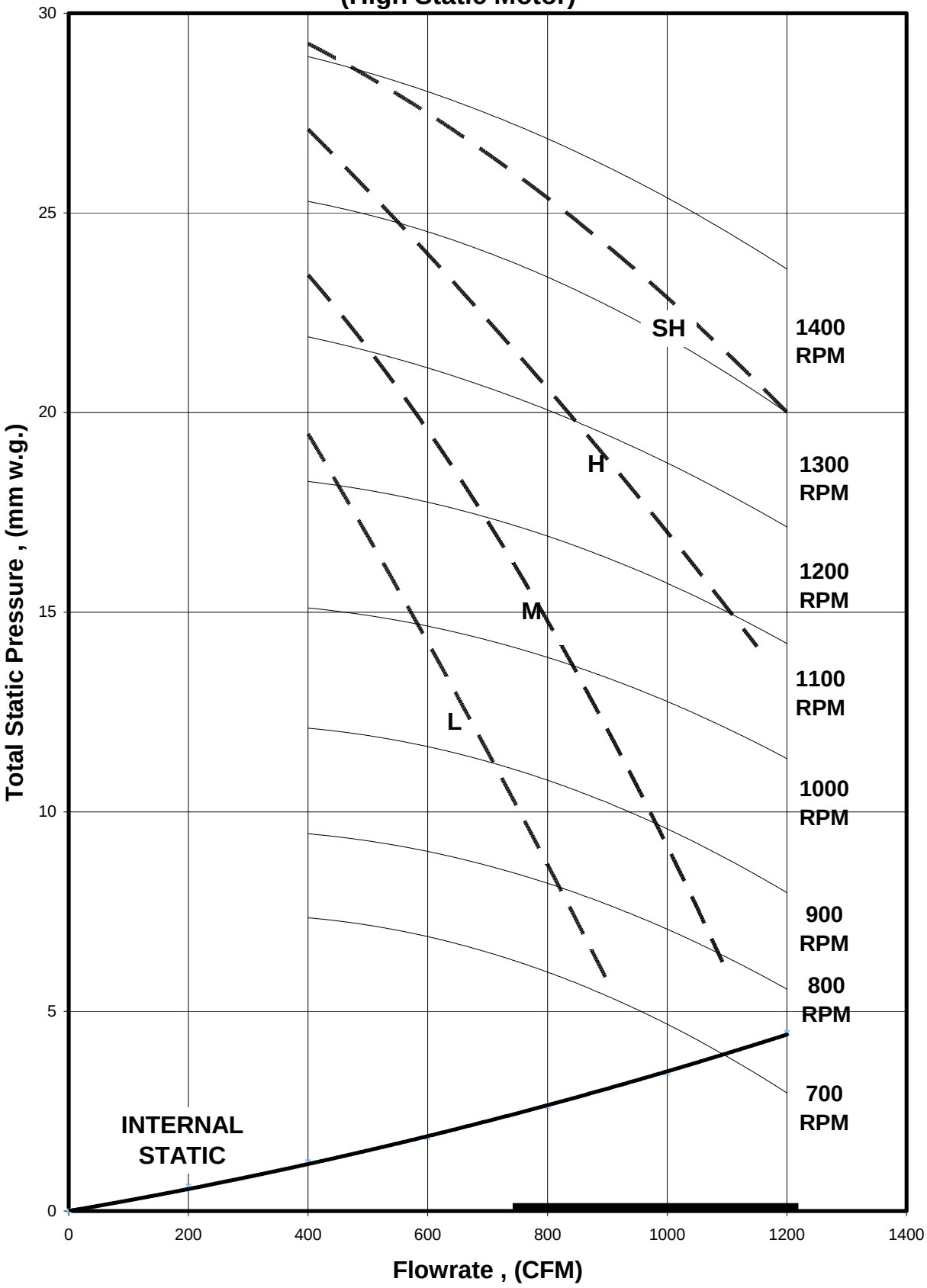
FAN PERFORMANCE CURVE
M5CCWS020CR
(High Static Motor)



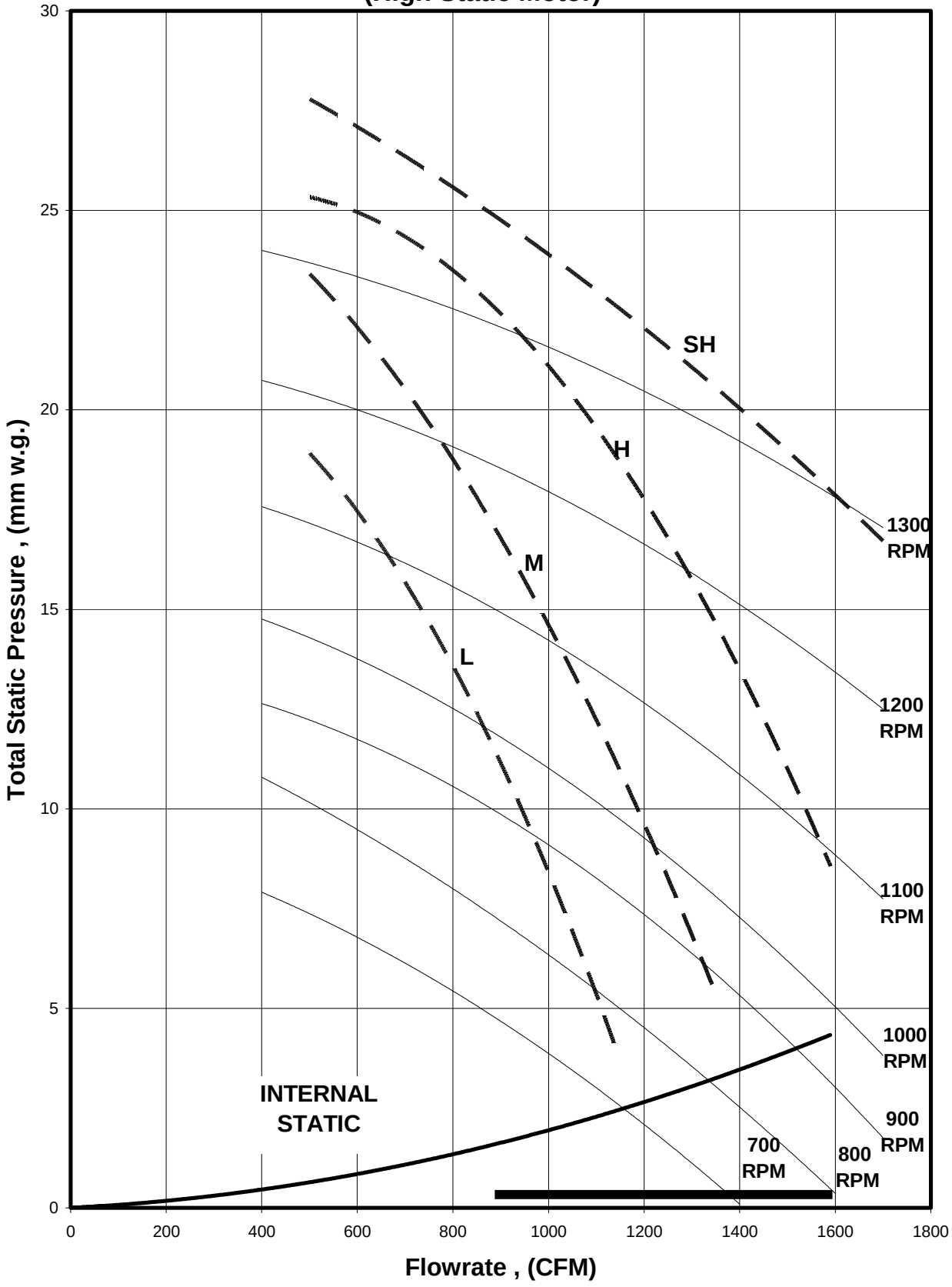
FAN PERFORMANCE CURVE
M5CCWS025CR
(High Static Motor)



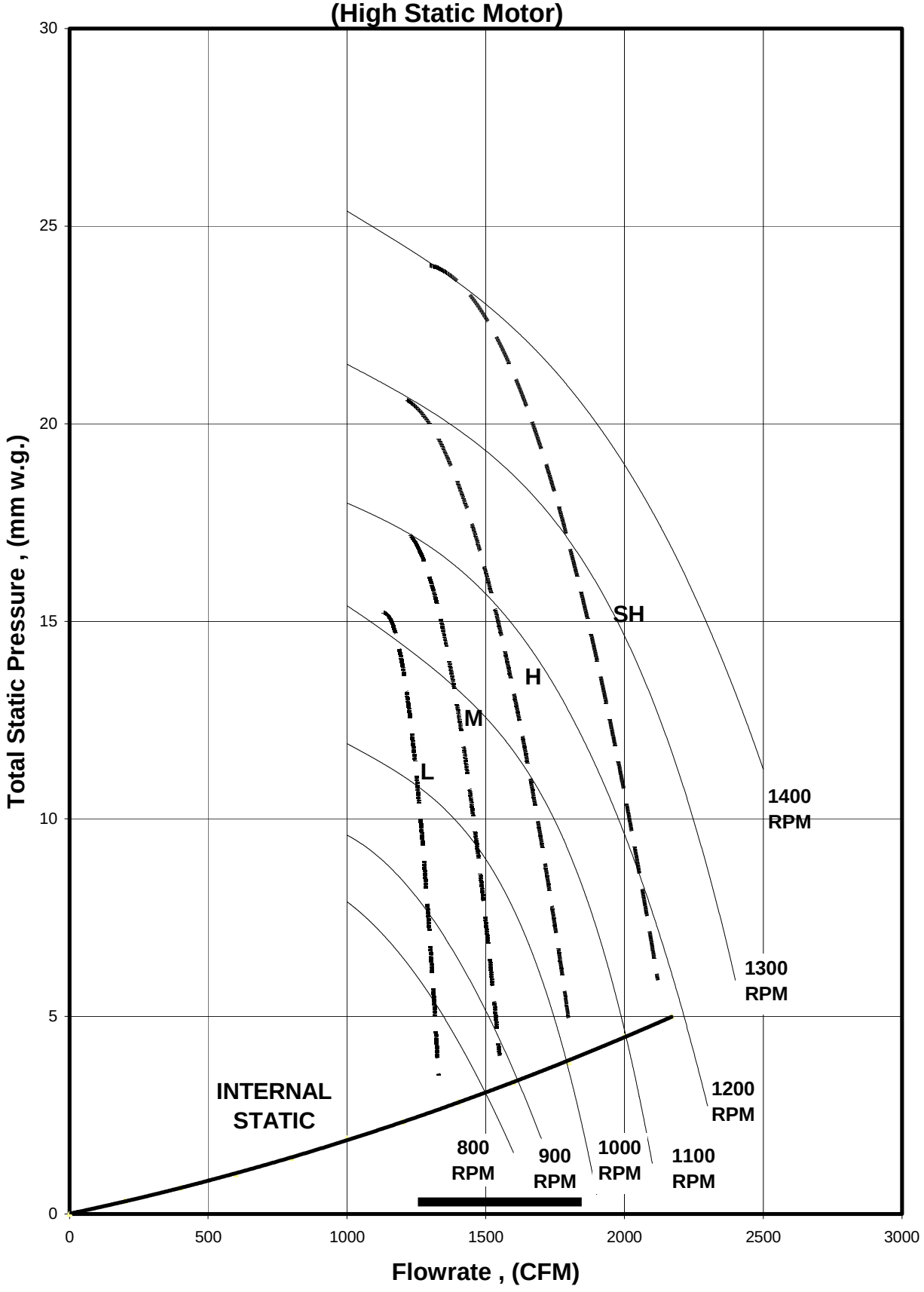
FAN PERFORMANCE CURVE
M5CCWS030CR
(High Static Motor)



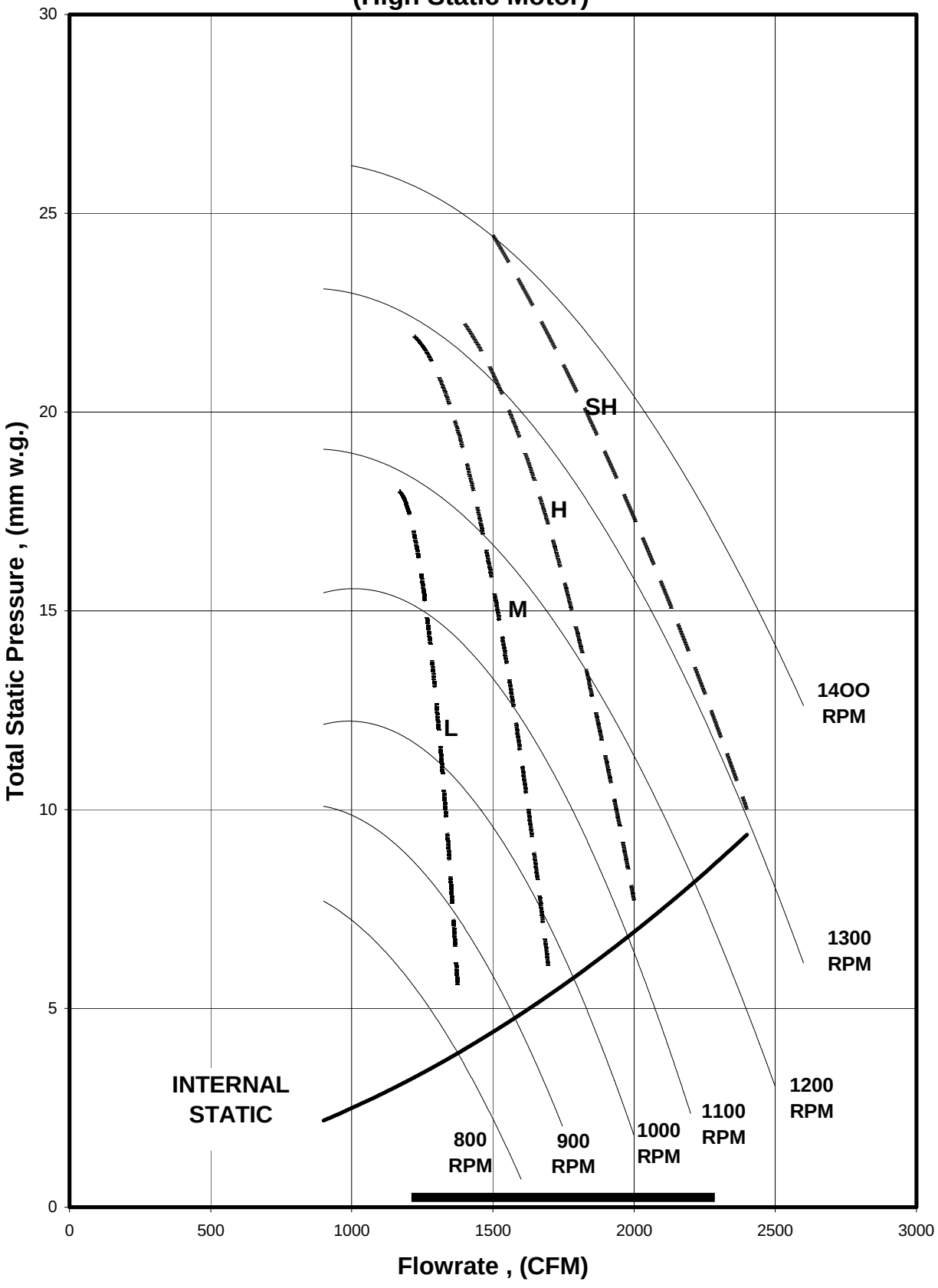
FAN PERFROMANCE CURVE
M5CCWS040CR
(High Static Motor)



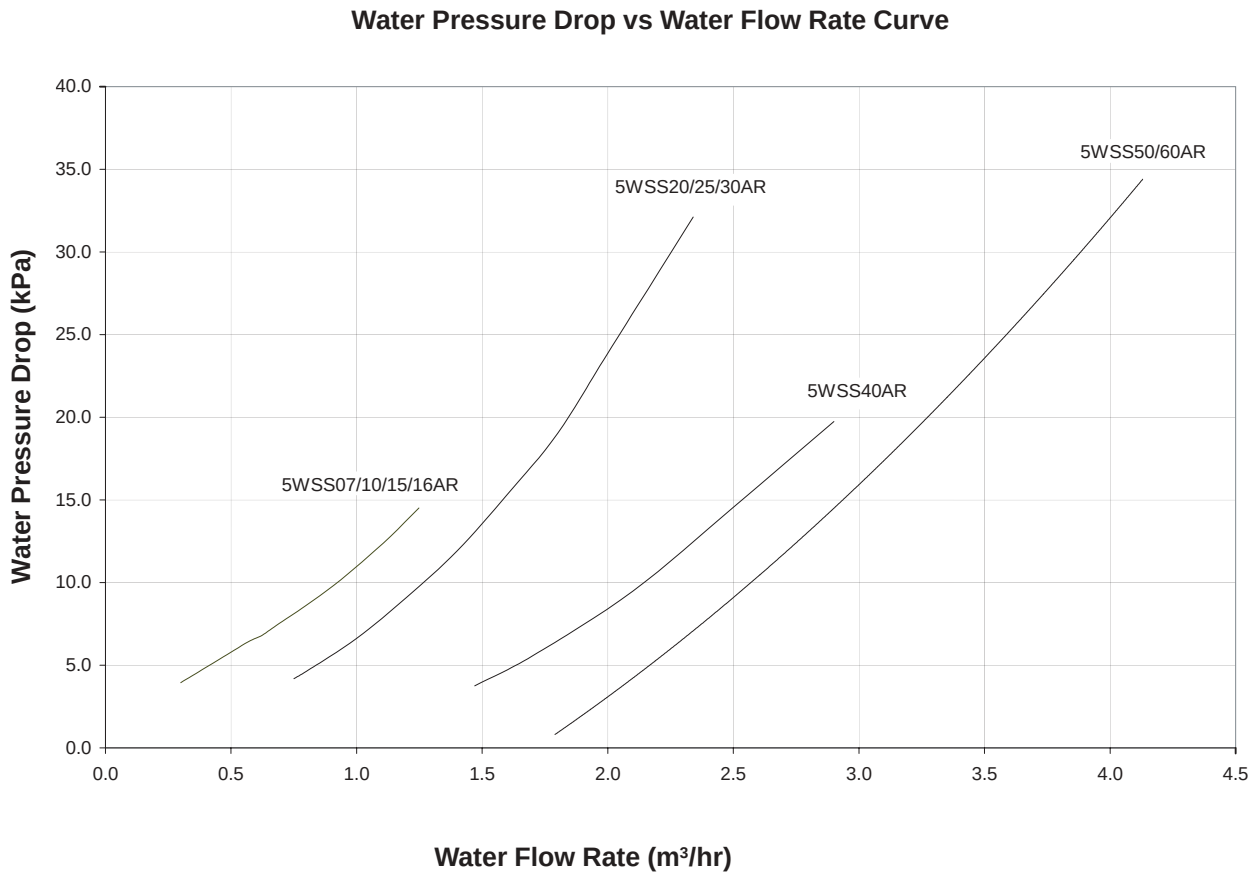
FAN PERFORMANCE CURVE
M5CCWS050CR
(High Static Motor)



FAN PERFORMANCE CURVE
M5CCWS060CR
(High Static Motor)



Water Pressure Drop vs Water Flow Rate Curve



Engineering and Physical Data

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT		M5CCWS010CR	
		OUTDOOR UNIT		M5WSS007AR	M5WSS010AR
NOMINAL COOLING CAPACITY			Btu/h	8100	10000
			W	2370	2930
NOMINAL HEATING CAPACITY			Btu/h	8800	10500
			W	2580	3080
NOMINAL TOTAL INPUT POWER (COOLING)			W	567	707
NOMINAL TOTAL INPUT POWER (HEATING)			W	577	727
NOMINAL RUNNING CURRENT (COOLING)			A	2.60	3.09
NOMINAL RUNNING CURRENT (HEATING)			A	2.60	3.19
POWER SOURCE			V/Ph/Hz	220-240 / 1 / 50	
REFRIGERANT TYPE / CONTROL				R410A / OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE		DUCTED	
		OPERATION		SLM WIRED HANDSET (OPTIONAL AC5300 REMOTE CONTROLLER)	
	AIR FLOW	HIGH	l/s / CFM	142 / 300	
		MEDIUM	l/s / CFM	123 / 260	
		LOW	l/s / CFM	104 / 220	
	EXTERNAL STATIC PRESSURE (H/M/L)		Pa (in.wg.)	49 / 39 / 29 (0.20 / 0.16 / 0.12)	
	SOUND PRESSURE LEVEL (H/M/L)		dBA	33 / 30 / 26	
	UNIT DIMENSION	HEIGHT	mm/in	261 / 10.28	
		WIDTH	mm/in	765 / 30.12	
		DEPTH	mm/in	411 / 16.18	
	PACKING DIMENSION	HEIGHT	mm/in	410 / 16.14	
		WIDTH	mm/in	951 / 37.44	
		DEPTH	mm/in	535 / 21.06	
	UNIT WEIGHT		kg/lb	17 / 37.5	
	CONDENSATE DRAIN SIZE		mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE		l/s / m³/h	0.13 / 0.45	0.14 / 0.51
	WATER PRESSURE DROP		kPa	5.36	5.88
	SOUND PRESSURE LEVEL		dBA	30	31
	UNIT DIMENSION	HEIGHT	mm/in	300 / 11.81	330 / 12.99
		WIDTH	mm/in	764 / 30.08	
		DEPTH	mm/in	280 / 11.02	
	PACKING DIMENSION	HEIGHT	mm/in	361 / 14.21	391 / 15.39
		WIDTH	mm/in	838 / 32.99	
		DEPTH	mm/in	426 / 16.77	
	UNIT WEIGHT		kg/lb	32.9/ 72.53	34.9 / 76.94
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	6.35 / 1/4	
		SIZE GAS	mm/in	9.52 / 3/8	
REFRIGERANT CHARGE			kg/lb	0.6 /1.32	

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL	INDOOR UNIT			M5CCWS015CR	M5CCWS020CR
	OUTDOOR UNIT			M5WSS015AR	M5WSS016AR
NOMINAL COOLING CAPACITY			Btu/h	12200	15800
			W	3580	4630
NOMINAL HEATING CAPACITY			Btu/h	12800	15800
			W	3750	4630
NOMINAL TOTAL INPUT POWER (COOLING)			W	1012	1115
NOMINAL TOTAL INPUT POWER (HEATING)			W	1002	1075
NOMINAL RUNNING CURRENT (COOLING)			A	4.80	5
NOMINAL RUNNING CURRENT (HEATING)			A	4.80	4.9
POWER SOURCE			V/Ph/Hz	220-240 / 1 / 50	
REFRIGERANT TYPE / CONTROL				R410A / OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE		DUCTED	
		OPERATION		SLM WIRED HANDSET (OPTIONAL AC5300 REMOTE CONTROLLER)	
	AIR FLOW	HIGH	l/s / CFM	241 / 510	330 / 700
		MEDIUM	l/s / CFM	208 / 440	321 / 680
		LOW	l/s / CFM	170 / 360	293 / 620
	EXTERNAL STATIC PRESSURE (H/M/L)		Pa (in.wg.)	49 / 39 / 20 (0.20 / 0.16 / 0.08)	64 / 58 / 34 (0.26 / 0.24 / 0.14)
	SOUND PRESSURE LEVEL (H/M/L)		dBA	37 / 34 / 29	38 / 36 / 34
	UNIT DIMENSION	HEIGHT	mm/in	261 / 10.28	
		WIDTH	mm/in	765 / 30.12	1065 / 41.93
		DEPTH	mm/in	411 / 16.18	
	PACKING DIMENSION	HEIGHT	mm/in	410 / 16.14	
		WIDTH	mm/in	951 / 37.44	1251 / 49.25
		DEPTH	mm/in	535 / 21.06	
	UNIT WEIGHT		kg/lb	21 / 46.3	22 / 48.5
	CONDENSATE DRAIN SIZE		mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE		l/s / m³/h	0.21 / 0.75	0.26 / 0.95
	WATER PRESSURE DROP		kPa	8.12	10.35
	SOUND PRESSURE LEVEL		dBA	30	34
	UNIT DIMENSION	HEIGHT	mm/in	330 / 12.99	360 / 14.17
		WIDTH	mm/in	764 / 30.08	
		DEPTH	mm/in	280 / 11.02	
	PACKING DIMENSION	HEIGHT	mm/in	391 / 15.39	421 / 16.57
		WIDTH	mm/in	838 / 32.99	
		DEPTH	mm/in	426 / 16.77	
	UNIT WEIGHT		kg/lb	35.5/ 78.26	39.7 / 87.52
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	6.35 / 1/4	
		SIZE GAS	mm/in	12.7 / 1/2	
REFRIGERANT CHARGE			kg/lb	0.7 /1.54	0.725/1.6

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2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5CCWS020CR	M5CCWS025CR
		OUTDOOR UNIT			M5WSS020AR	M5WSS025AR
NOMINAL COOLING CAPACITY				Btu/h	20500	26000
				W	6010	7620
NOMINAL HEATING CAPACITY				Btu/h	23000	28000
				W	6740	8210
NOMINAL TOTAL INPUT POWER (COOLING)				W	1505	1596
NOMINAL TOTAL INPUT POWER (HEATING)				W	1655	1746
NOMINAL RUNNING CURRENT (COOLING)				A	6.7	7.2
NOMINAL RUNNING CURRENT (HEATING)				A	7.4	7.8
POWER SOURCE				V/Ph/Hz	220-240 / 1 / 50	
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			DUCTED	
		OPERATION			SLM WIRED HANDSET (OPTIONAL AC5300 REMOTE CONTROLLER)	
	AIR FLOW	HIGH		l/s / CFM	330 / 700	345 / 730
		MEDIUM		l/s / CFM	321 / 680	340 / 720
		LOW		l/s / CFM	293 / 620	274 / 580
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa (in.wg.)	64 / 58 / 34 (0.26 / 0.24 / 0.14)	55 / 39 / 29 (0.22 / 0.16 / 0.12)
	SOUND PRESSURE LEVEL (SH/H/M/L)			dBA	38 / 36 / 34	40 / 39 / 36
	UNIT DIMENSION	HEIGHT		mm/in	261 / 10.28	
		WIDTH		mm/in	1065 / 41.93	1200 / 47.24
		DEPTH		mm/in	411 / 16.18	
	PACKING DIMENSION	HEIGHT		mm/in	410 / 16.14	
		WIDTH		mm/in	1251 / 49.25	1386 / 54.57
		DEPTH		mm/in	535 / 21.06	
	UNIT WEIGHT			kg/lb	22 / 48.5	25 / 55.1
	CONDENSATE DRAIN SIZE			mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.35 / 1.25	0.39 / 1.40
	WATER PRESSURE DROP			kPa	14.54	19.03
	SOUND PRESSURE LEVEL			dBA	37	
	UNIT DIMENSION	HEIGHT		mm/in	360 / 14.17	
		WIDTH		mm/in	764 / 30.08	
		DEPTH		mm/in	280 / 11.02	
	PACKING DIMENSION	HEIGHT		mm/in	421 / 16.57	
		WIDTH		mm/in	838 / 32.99	
		DEPTH		mm/in	426 / 16.77	
	UNIT WEIGHT			kg/lb	49.1/ 108.25	50 / 110.23
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.35 / 1/4	
			GAS	mm/in	12.7 / 1/2	15.88/5/8
REFRIGERANT CHARGE				kg/lb	0.975 /2.15	1.0/2.2

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2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL	INDOOR UNIT			M5CCWS030CR	M5CCWS040CR
	OUTDOOR UNIT			M5WSS030AR	M5WSS040AR
NOMINAL COOLING CAPACITY			Btu/h	30500	39500
			W	8940	11580
NOMINAL HEATING CAPACITY			Btu/h	31000	40500
			W	9090	11870
NOMINAL TOTAL INPUT POWER (COOLING)			W	2322	2933
NOMINAL TOTAL INPUT POWER (HEATING)			W	2402	2923
NOMINAL RUNNING CURRENT (COOLING)			A	11.4	5.4
NOMINAL RUNNING CURRENT (HEATING)			A	11.6	5.4
POWER SOURCE			V/Ph/Hz	220-240 / 1 / 50	380-415 / 3 / 50
REFRIGERANT TYPE / CONTROL				R410A / OUTDOOR THERMOSTATIC EXPANSION VALVE	
INDOOR UNIT	CONTROL	AIR DISCHARGE		DUCTED	
		OPERATION		SLM WIRED HANDSET (OPTIONAL AC5300 REMOTE CONTROLLER)	
	AIR FLOW	SUPER HIGH	l/s / CFM	425 / 900	519 / 1100
		HIGH	l/s / CFM	392 / 830	500 / 1060
		MEDIUM	l/s / CFM	359 / 760	467 / 990
		LOW	l/s / CFM	335 / 710	425 / 900
	EXTERNAL STATIC PRESSURE (H/M/L)		Pa (in.wg.)	206/167/127/88 (0.83/0.67/0.51/0.35)	206/176/127/93 (0.83/0.71/0.51/0.37)
	SOUND PRESSURE LEVEL (SH/H/M/L)		dBA	49 / 46 / 42 / 38	51 / 49 / 45 / 41
	UNIT DIMENSION	HEIGHT	mm/in	378 / 14.88	
		WIDTH	mm/in	929 / 36.57	1045 / 41.14
		DEPTH	mm/in	541 / 21.30	
	PACKING DIMENSION	HEIGHT	mm/in	399 / 15.71	
		WIDTH	mm/in	1110 / 43.70	1229 / 48.39
		DEPTH	mm/in	615 / 24.21	
	UNIT WEIGHT		kg/lb	39 / 85.98	42 / 92.59
	CONDENSATE DRAIN SIZE		mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE		l/s / m³/h	0.5 / 1.80	0.58 / 2.10
	WATER PRESSURE DROP		kPa	30.59	9.49
	SOUND PRESSURE LEVEL		dBA	38	40
	UNIT DIMENSION	HEIGHT	mm/in	385 / 15.16	440 / 17.32
		WIDTH	mm/in	844 / 33.23	1020 / 40.15
		DEPTH	mm/in	418 / 16.46	549 / 21.61
	PACKING DIMENSION	HEIGHT	mm/in	445 / 17.52	501 / 19.72
		WIDTH	mm/in	479 / 18.86	609 / 23.98
		DEPTH	mm/in	929 / 36.57	1091 / 42.95
	UNIT WEIGHT		kg/lb	64.1 / 141.32	95.7 / 210.98
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	9.52 / 3/8	
		SIZE GAS	mm/in	15.88 / 5/8	
REFRIGERANT CHARGE			kg/lb	1.2 / 2.65	1.475 / 3.25

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a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5CCWS050CR	M5CCWS060CR
		OUTDOOR UNIT			M5WSS050AR	M5WSS060AR
NOMINAL COOLING CAPACITY				Btu/h	50000	53800
				W	14650	15770
NOMINAL HEATING CAPACITY				Btu/h	51000	58000
				W	14950	17000
NOMINAL TOTAL INPUT POWER (COOLING)				W	3611	4191
NOMINAL TOTAL INPUT POWER (HEATING)				W	3551	3891
NOMINAL RUNNING CURRENT (COOLING)				A	6.6	7.7
NOMINAL RUNNING CURRENT (HEATING)				A	6.5	7.4
POWER SOURCE				V/Ph/Hz	380-415 / 3 / 50	
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR THERMOSTATIC EXPANSION VALVE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			DUCTED	
		OPERATION			SLM WIRED HANDSET (OPTIONAL AC5300 REMOTE CONTROLLER)	
	AIR FLOW	SUPER HIGH		l/s / CFM	750 / 1590	779 / 1650
		HIGH		l/s / CFM	651 / 1380	722 / 1530
		MEDIUM		l/s / CFM	604 / 1280	675 / 1430
		LOW		l/s / CFM	571 / 1210	609 / 1290
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa (in.wg.)	176/157/137/108 (0.71/0.63/0.55/0.43)	176/157/137/108 (0.71/0.63/0.55/0.43)
	SOUND PRESSURE LEVEL (SH/H/M/L)			dBA	53 / 52 / 50 / 47	55 / 53 / 50 / 47
	UNIT DIMENSION	HEIGHT		mm/in	378 / 14.88	
		WIDTH		mm/in	1299 / 51.14	1499 / 59.02
		DEPTH		mm/in	541 / 21.30	
	PACKING DIMENSION	HEIGHT		mm/in	399 / 15.71	
		WIDTH		mm/in	1481 / 58.31	1685 / 66.34
		DEPTH		mm/in	615 / 24.21	
	UNIT WEIGHT			kg/lb	54 / 119.05	62 / 136.69
	CONDENSATE DRAIN SIZE			mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.71 / 2.55	0.88 / 3.17
	WATER PRESSURE DROP			kPa	9.59	18.84
	SOUND PRESSURE LEVEL			dBA	40	
	UNIT DIMENSION	HEIGHT		mm/in	504 / 19.84	
		WIDTH		mm/in	1020 / 40.15	
		DEPTH		mm/in	648 / 25.51	
	PACKING DIMENSION	HEIGHT		mm/in	563 / 22.17	
		WIDTH		mm/in	703 / 27.68	
		DEPTH		mm/in	1091 / 42.95	
	UNIT WEIGHT			kg/lb	119.6 / 263.67	123.4 / 272.05
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.52 / 3/8	
			GAS	mm/in	15.88 / 5/8	19.05 / 3/4
REFRIGERANT CHARGE				kg/lb	1.95 / 4.3	2.3 / 5.07

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2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL	INDOOR UNIT			M5CCWS040CR	M5CCWS050CR
	OUTDOOR UNIT			M5WST040AR	M5WST050AR
NOMINAL COOLING CAPACITY			Btu/h	37000	46000
			W	10840	13480
NOMINAL HEATING CAPACITY			Btu/h	40000	50000
			W	11720	14650
NOMINAL TOTAL INPUT POWER (COOLING)			W	3403	4500
NOMINAL TOTAL INPUT POWER (HEATING)			W	3613	4150
NOMINAL RUNNING CURRENT (COOLING)			A	5.1	6.6
NOMINAL RUNNING CURRENT (HEATING)			A	5.4	6.1
POWER SOURCE			V/Ph/Hz	380-415 / 3 / 50	
REFRIGERANT TYPE / CONTROL				R410A / CAP. TUBE & TXV	
INDOOR UNIT	CONTROL	AIR DISCHARGE		DUCTED	
		OPERATION		SLM WIRED HANDSET (OPTIONAL AC5300 REMOTE CONTROLLER)	
	AIR FLOW	S.HIGH	l/s / CFM	519 / 1100	750 / 1590
		HIGH	l/s / CFM	500 / 1060	651 / 1380
		MEDIUM	l/s / CFM	467 / 990	604 / 1280
		LOW	l/s / CFM	425 / 900	571 / 1210
	EXTERNAL STATIC PRESSURE (SH/H/M/L)		Pa / in.wg	206/176/127/88 (0.83/0.71/0.51/0.35)	176/157/137/108 (0.71/0.63/0.55/0.43)
	SOUND PRESSURE LEVEL (SH/H/M/L)		dBA	51 / 49 / 45 / 41	53 / 52 / 50 / 47
	UNIT DIMENSION	HEIGHT	mm/in	378 / 14.88	
		WIDTH	mm/in	1045 / 41.14	1299 / 51.14
		DEPTH	mm/in	541 / 21.30	
	PACKING DIMENSION	HEIGHT	mm/in	399 / 15.71	
		WIDTH	mm/in	1229 / 48.39	1481 / 58.31
		DEPTH	mm/in	615 / 24.21	
	UNIT WEIGHT		kg/lb	42 / 92.59	54 / 119.05
	CONDENSATE DRAIN SIZE		mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE		l/s / m³/h	0.64 / 2.3	0.81 / 2.9
	WATER PRESSURE DROP		kPa	12.03	15.50
	SOUND PRESSURE LEVEL		dBA	40	42
	UNIT DIMENSION	HEIGHT	mm/in	440 / 17.3	504 / 19.8
		WIDTH	mm/in	1014 / 40.0	
		DEPTH	mm/in	549 / 21.6	648 / 25.5
	PACKING DIMENSION	HEIGHT	mm/in	501 / 19.72	563 / 22.17
		WIDTH	mm/in	1091 / 42.95	
		DEPTH	mm/in	609 / 23.98	703 / 27.68
	UNIT WEIGHT		kg/lb	105.0 / 231.0	134.0 / 294.8
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	9.52 / 3/8	
		SIZE GAS	mm/in	15.88 / 5/8	
REFRIGERANT CHARGE			kg/lb	1.925 / 4.24	2.450 / 5.4

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2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5CCWS060CR
		OUTDOOR UNIT			M5WST060AR
NOMINAL COOLING CAPACITY				Btu/h	53000
				W	15530
NOMINAL HEATING CAPACITY				Btu/h	57000
				W	16710
NOMINAL TOTAL INPUT POWER (COOLING)				W	4691
NOMINAL TOTAL INPUT POWER (HEATING)				W	4591
NOMINAL RUNNING CURRENT (COOLING)				A	7.1
NOMINAL RUNNING CURRENT (HEATING)				A	7.0
POWER SOURCE				V/Ph/Hz	380-415 / 3 / 50
REFRIGERANT TYPE / CONTROL					R410A / CAP. TUBE & TXV
INDOOR UNIT	CONTROL	AIR DISCHARGE			DUCTED
		OPERATION			SLM WIRED HANDSET (OPTIONAL AC5300 REMOTE CONTROLLER)
	AIR FLOW	S.HIGH		l/s / CFM	779 / 1650
		HIGH		l/s / CFM	722 / 1530
		MEDIUM		l/s / CFM	675 / 1430
		LOW		l/s / CFM	609 / 1290
	EXTERNAL STATIC PRESSURE (SH/H/M/L)			Pa / in.wg	176/157/137/108 (0.71/0.63/0.55/0.43)
	SOUND PRESSURE LEVEL (SH/H/M/L)			dBA	55 / 53 / 50 / 47
	UNIT DIMENSION	HEIGHT		mm/in	378 / 14.88
		WIDTH		mm/in	1499 / 59.02
		DEPTH		mm/in	541 / 21.30
	PACKING DIMENSION	HEIGHT		mm/in	399 / 15.71
		WIDTH		mm/in	1685 / 66.34
		DEPTH		mm/in	615 / 24.21
	UNIT WEIGHT			kg/lb	62 / 136.69
	CONDENSATE DRAIN SIZE			mm/in	19.05 / 3/4
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.96 / 3.45
	WATER PRESSURE DROP			kPa	22.21
	SOUND PRESSURE LEVEL			dBA	41
	UNIT DIMENSION	HEIGHT		mm/in	504 / 19.8
		WIDTH		mm/in	1014 / 40.0
		DEPTH		mm/in	648 / 25.5
	PACKING DIMENSION	HEIGHT		mm/in	563 / 22.17
		WIDTH		mm/in	1091 / 42.95
		DEPTH		mm/in	703 / 27.68
	UNIT WEIGHT			kg/lb	134.0 / 294.8
	PIPE CONNECTION	TYPE			FLARE VALVE
		SIZE	LIQUID	mm/in	9.52 / 3/8
			GAS	mm/in	19.05 / 3/4
REFRIGERANT CHARGE				kg/lb	3.500 / 7.72

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2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT		M5CKWS020AR	
		OUTDOOR UNIT		M5WSS016AR	M5WSS020AR
NOMINAL COOLING CAPACITY			Btu/h	16000	20000
			W	4685	5856
NOMINAL HEATING CAPACITY			Btu/h	16500	20500
			W	4831	6003
NOMINAL TOTAL INPUT POWER (COOLING)			W	1102	1492
NOMINAL TOTAL INPUT POWER (HEATING)			W	1062	1642
NOMINAL RUNNING CURRENT (COOLING)			A	4.90	6.60
NOMINAL RUNNING CURRENT (HEATING)			A	4.80	7.30
POWER SOURCE			V/Ph/Hz	220-240 / 1 / 50	
REFRIGERANT TYPE / CONTROL				R410A / OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE		4 WAY AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION		WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH	l/s / CFM	349 / 740	
		MEDIUM	l/s / CFM	297 / 630	
		LOW	l/s / CFM	283 / 600	
	SOUND PRESSURE LEVEL (H/M/L)		dBA	42 / 39 / 37	
	UNIT DIMENSION ( )- With Panel	HEIGHT	mm/in	335 (363) / 13.2 (14.3)	
		WIDTH	mm/in	820 (930) / 32.2 (36.6)	
		DEPTH	mm/in	820 (930) / 32.2 (36.6)	
	PACKING DIMENSION ( )- With Panel	HEIGHT	mm/in	380 (130) / 15.0 (5.1)	
		WIDTH	mm/in	920 (1020) / 36.2 (40.2)	
		DEPTH	mm/in	920 (1000) / 36.2 (39.4)	
	UNIT WEIGHT (UNIT + PANEL)		kg/lb	31 + 4 / 68.3 + 8.8	
	CONDENSATE DRAIN SIZE		mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE		l/s / m³/h	0.26 / 0.95	0.35 / 1.25
	WATER PRESSURE DROP		kPa	10.35	14.54
	SOUND PRESSURE LEVEL		dBA	34	37
	UNIT DIMENSION	HEIGHT	mm/in	360 / 14.17	
		WIDTH	mm/in	764 / 30.08	
		DEPTH	mm/in	280 / 11.02	
	PACKING DIMENSION	HEIGHT	mm/in	421 / 16.57	
		WIDTH	mm/in	838 / 32.99	
		DEPTH	mm/in	426 / 16.77	
	UNIT WEIGHT		kg/lb	39.7 / 87.52	49.1/ 108.25
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	6.35 / 1/4	
		SIZE GAS	mm/in	12.7 / 1/2	
REFRIGERANT CHARGE			kg/lb	0.725 / 1.60	0.975 / 2.15

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2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5CKWS025AR	M5CKWS030AR
		OUTDOOR UNIT			M5WSS025AR	M5WSS030AR
NOMINAL COOLING CAPACITY				Btu/h	25000	30000
				W	7320	8784
NOMINAL HEATING CAPACITY				Btu/h	25500	31000
				W	7467	9077
NOMINAL TOTAL INPUT POWER (COOLING)				W	1582	2120
NOMINAL TOTAL INPUT POWER (HEATING)				W	1732	2200
NOMINAL RUNNING CURRENT (COOLING)				A	7.1	10.5
NOMINAL RUNNING CURRENT (HEATING)				A	7.8	10.7
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50	
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR CAP. TUBE	R410A / OUTDOOR TXV
INDOOR UNIT	CONTROL	AIR DISCHARGE			4 WAY AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	368 / 780	415 / 880
		MEDIUM		l/s / CFM	311 / 660	349 / 740
		LOW		l/s / CFM	283 / 600	321 / 680
	SOUND PRESSURE LEVEL (H/M/L)			dBA	45 / 42 / 40	49 / 45 / 43
	UNIT DIMENSION ( )- With Panel	HEIGHT		mm/in	335 (363) / 13.2 (14.3)	
		WIDTH		mm/in	820 (930) / 32.2 (36.6)	
		DEPTH		mm/in	820 (930) / 32.2 (36.6)	
	PACKING DIMENSION ( )- With Panel	HEIGHT		mm/in	380 (130) / 15.0 (5.1)	
		WIDTH		mm/in	920 (1020) / 36.2 (40.2)	
		DEPTH		mm/in	920 (1000) / 36.2 (39.4)	
	UNIT WEIGHT (UNIT + PANEL)			kg/lb	32 + 4 / 70.5 + 8.8	35 + 4 / 77.2 + 8.8
	CONDENSATE DRAIN SIZE			mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.39 / 1.40	0.5 / 1.80
	WATER PRESSURE DROP			kPa	19.03	30.59
	SOUND PRESSURE LEVEL			dBA	37	38
	UNIT DIMENSION	HEIGHT		mm/in	360 / 14.17	385 / 15.16
		WIDTH		mm/in	764 / 30.08	844 / 33.23
		DEPTH		mm/in	280 / 11.02	418 / 16.46
	PACKING DIMENSION	HEIGHT		mm/in	421 / 16.57	445 / 17.52
		WIDTH		mm/in	838 / 32.99	479 / 18.86
		DEPTH		mm/in	426 / 16.77	929 / 36.57
	UNIT WEIGHT			kg/lb	50 / 110.23	64.1 / 141.32
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.35 / 1/4	9.52 / 3/8
			GAS	mm/in	15.88 / 5/8	
REFRIGERANT CHARGE				kg/lb	1.0 / 2.2	1.2 / 2.65

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a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5CKWS040AR	M5CKWS050AR
		OUTDOOR UNIT			M5WSS040AR	M5WSS050AR
NOMINAL COOLING CAPACITY				Btu/h	38500	51500
				W	11273	15080
NOMINAL HEATING CAPACITY				Btu/h	41500	54500
				W	12152	15958
NOMINAL TOTAL INPUT POWER (COOLING)				W	2669	3333
NOMINAL TOTAL INPUT POWER (HEATING)				W	2659	3273
NOMINAL RUNNING CURRENT (COOLING)				A	5.6	6.8
NOMINAL RUNNING CURRENT (HEATING)				A	5.5	6.7
POWER SOURCE				V/Ph/Hz	380 - 415 / 3 / 50	
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR TXV	
INDOOR UNIT	CONTROL	AIR DISCHARGE			4 WAY AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		I/s / CFM	467 / 990	491 / 1040
		MEDIUM		I/s / CFM	406 / 860	448 / 950
		LOW		I/s / CFM	359 / 760	411 / 870
	SOUND PRESSURE LEVEL (H/M/L)			dBA	51 / 48 / 46	53 / 52 / 50
	UNIT DIMENSION ( )- With Panel	HEIGHT		mm/in	335 (363) / 13.2 (14.3)	
		WIDTH		mm/in	820 (930) / 32.2 (36.6)	
		DEPTH		mm/in	820 (930) / 32.2 (36.6)	
	PACKING DIMENSION ( )- With Panel	HEIGHT		mm/in	380 (130) / 15.0 (5.1)	
		WIDTH		mm/in	920 (1020) / 36.2 (40.2)	
		DEPTH		mm/in	920 (1000) / 36.2 (39.4)	
	UNIT WEIGHT (UNIT + PANEL)			kg/lb	38 + 4 / 83.8 + 8.8	40 + 4 / 88.2 + 8.8
	CONDENSATE DRAIN SIZE			mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE			I/s / m³/h	0.58 / 2.10	0.71 / 2.55
	WATER PRESSURE DROP			kPa	9.49	9.59
	SOUND PRESSURE LEVEL			dBA	40	
	UNIT DIMENSION	HEIGHT		mm/in	440 / 17.32	504 / 19.84
		WIDTH		mm/in	1020 / 40.15	
		DEPTH		mm/in	549 / 21.61	648 / 25.51
	PACKING DIMENSION	HEIGHT		mm/in	501 / 19.72	563 / 22.17
		WIDTH		mm/in	609 / 23.98	703 / 27.68
		DEPTH		mm/in	1091 / 42.95	
	UNIT WEIGHT			kg/lb	95.7 / 210.98	119.6 / 263.67
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.52 / 3/8	
			GAS	mm/in	15.88 / 5/8	
REFRIGERANT CHARGE				kg/lb	1.475 / 3.25	1.95 / 4.3

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b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5CKWS010CR	M5CKWS010CR
		OUTDOOR UNIT			M5WSS007AR	M5WSS010AR
NOMINAL COOLING CAPACITY				Btu/h	8000	10000
				W	2342	2928
NOMINAL HEATING CAPACITY				Btu/h	8000	10000
				W	2342	2928
NOMINAL TOTAL INPUT POWER (COOLING)				W	505	645
NOMINAL TOTAL INPUT POWER (HEATING)				W	508	657
NOMINAL RUNNING CURRENT (COOLING)				A	2.3	2.8
NOMINAL RUNNING CURRENT (HEATING)				A	2.2	2.8
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50	
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			4 WAY AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	189 / 400	
		MEDIUM		l/s / CFM	184 / 390	
		LOW		l/s / CFM	175 / 370	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	44 / 43 / 42	
	UNIT DIMENSION ( )- With Panel	HEIGHT		mm/in	250 (295) / 9.8 (11.6	
		WIDTH		mm/in	570 (640) / 22.4 (25.2)	
		DEPTH		mm/in	570 (640) / 22.4 (25.2)	
	PACKING DIMENSION ( )- With Panel	HEIGHT		mm/in	317 (127) / 12.5 (5)	
		WIDTH		mm/in	630 (700) / 24.8 (27.6	
		DEPTH		mm/in	630 (700) / 24.8 (27.6	
	UNIT WEIGHT (UNIT + PANEL)			kg/lb	22 + 2 / 48.5 + 4.4	
	CONDENSATE DRAIN SIZE			mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.13 / 0.45	0.14 / 0.51
	WATER PRESSURE DROP			kPa	5.36	5.88
	SOUND PRESSURE LEVEL			dBA	30	31
	UNIT DIMENSION	HEIGHT		mm/in	300 / 11.81	330 / 12.99
		WIDTH		mm/in	764 / 30.08	
		DEPTH		mm/in	280 / 11.02	
	PACKING DIMENSION	HEIGHT		mm/in	361 / 14.21	391 / 15.39
		WIDTH		mm/in	838 / 32.99	
		DEPTH		mm/in	426 / 16.77	
	UNIT WEIGHT			kg/lb	32.9/ 72.53	34.9 / 76.94
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.35 / 1/4	
			GAS	mm/in	9.52 / 3/8	
REFRIGERANT CHARGE				kg/lb	0.6 /1.32	

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a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5CKWS015CR	M5CKWS020CR
		OUTDOOR UNIT			M5WSS015AR	M5WSS016AR
NOMINAL COOLING CAPACITY				Btu/h	12500	16500
				W	3660	4831
NOMINAL HEATING CAPACITY				Btu/h	12000	16500
				W	3514	4831
NOMINAL TOTAL INPUT POWER (COOLING)				W	932	1011
NOMINAL TOTAL INPUT POWER (HEATING)				W	849	1090
NOMINAL RUNNING CURRENT (COOLING)				A	4.6	4.5
NOMINAL RUNNING CURRENT (HEATING)				A	3.8	5.0
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50	
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			4 WAY AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	194 / 410	212 / 450
		MEDIUM		l/s / CFM	184 / 390	203 / 430
		LOW		l/s / CFM	170 / 360	194 / 410
	SOUND PRESSURE LEVEL (H/M/L)			dBA	44 / 42 / 41	47 / 46 / 44
	UNIT DIMENSION ( )- With Panel	HEIGHT		mm/in	250 (295) / 9.8 (11.6)	
		WIDTH		mm/in	570 (640) / 22.4 (25.2)	
		DEPTH		mm/in	570 (640) / 22.4 (25.2)	
	PACKING DIMENSION ( )- With Panel	HEIGHT		mm/in	317 (127) / 12.5 (5)	
		WIDTH		mm/in	630 (700) / 24.8 (27.6)	
		DEPTH		mm/in	630 (700) / 24.8 (27.6)	
	UNIT WEIGHT (UNIT + PANEL)			kg/lb	23.2 / 50.7 + 4.4	23 + 2 / 50.7 + 4.4
	CONDENSATE DRAIN SIZE			mm/in	19.05 / 3/4	
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.21 / 0.75	0.26 / 0.95
	WATER PRESSURE DROP			kPa	8.12	10.35
	SOUND PRESSURE LEVEL			dBA	30	34
	UNIT DIMENSION	HEIGHT		mm/in	330 / 12.99	360 / 14.17
		WIDTH		mm/in	764 / 30.08	
		DEPTH		mm/in	280 / 11.02	
	PACKING DIMENSION	HEIGHT		mm/in	391 / 15.39	421 / 16.57
		WIDTH		mm/in	838 / 32.99	
		DEPTH		mm/in	426 / 16.77	
	UNIT WEIGHT			kg/lb	35.5/ 78.26	39.7 / 87.52
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.35 / 1/4	
			GAS	mm/in	12.7 / 1/2	
REFRIGERANT CHARGE				kg/lb	0.7 /1.54	0.725/1.6

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a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5CKWS020CR
		OUTDOOR UNIT			M5WSS020AR
NOMINAL COOLING CAPACITY				Btu/h	22000
				W	6442
NOMINAL HEATING CAPACITY				Btu/h	22000
				W	6642
NOMINAL TOTAL INPUT POWER (COOLING)				W	1414
NOMINAL TOTAL INPUT POWER (HEATING)				W	1763
NOMINAL RUNNING CURRENT (COOLING)				A	6.3
NOMINAL RUNNING CURRENT (HEATING)				A	8.0
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE			4 WAY AUTOMATIC LOUVER (UP & DOWN)
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL
	AIR FLOW	HIGH		I/s / CFM	212 / 450
		MEDIUM		I/s / CFM	203 / 430
		LOW		I/s / CFM	194 / 410
	SOUND PRESSURE LEVEL (H/M/L)			dBA	47 / 46 / 44
	UNIT DIMENSION ( )- With Panel	HEIGHT		mm/in	250 (295) / 9.8 (11.6
		WIDTH		mm/in	570 (640) / 22.4 (25.2)
		DEPTH		mm/in	570 (640) / 22.4 (25.2)
	PACKING DIMENSION ( )- With Panel	HEIGHT		mm/in	317 (127) / 12.5 (5)
		WIDTH		mm/in	630 (700) / 24.8 (27.6
		DEPTH		mm/in	630 (700) / 24.8 (27.6
	UNIT WEIGHT (UNIT + PANEL)			kg/lb	23 + 2 / 50.7 + 4.4
	CONDENSATE DRAIN SIZE			mm/in	19.05 / 3/4
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.35 / 1.25
	WATER PRESSURE DROP			kPa	14.54
	SOUND PRESSURE LEVEL			dBA	37
	UNIT DIMENSION	HEIGHT		mm/in	360 / 14.17
		WIDTH		mm/in	764 / 30.08
		DEPTH		mm/in	280 / 11.02
	PACKING DIMENSION	HEIGHT		mm/in	421 / 16.57
		WIDTH		mm/in	838 / 32.99
		DEPTH		mm/in	426 / 16.77
	UNIT WEIGHT			kg/lb	49.1/ 108.25
	PIPE CONNECTIO	TYPE			FLARE VALVE
		SIZE	LIQUID	mm/in	6.35 / 1/4
			GAS	mm/in	12.7 / 1/2
REFRIGERANT CHARGE				kg/lb	0.975 /2.15

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a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5WMWS010GR	M5WMWS010GR
		OUTDOOR UNIT			M5WSS007AR	M5WSS010AR
NOMINAL COOLING CAPACITY				Btu/h	8094	10000
				W	2370	2930
NOMINAL HEATING CAPACITY				Btu/h	8800	10500
				W	2580	3080
NOMINAL TOTAL INPUT POWER (COOLING)				W	528	668
NOMINAL TOTAL INPUT POWER (HEATING)				W	538	688
NOMINAL RUNNING CURRENT (COOLING)				A	2.41	2.91
NOMINAL RUNNING CURRENT (HEATING)				A	2.41	3.00
POWER SOURCE				V/Ph/Hz	220-240 / 1 / 50	
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			DOUBLE LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)	
		OPERATION			LCD REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	142 / 300	
		MEDIUM		l/s / CFM	118 / 250	
		LOW		l/s / CFM	94 / 200	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	39 / 34 / 28	
	UNIT DIMENSION	HEIGHT		mm/in	260 / 10.2	
		WIDTH		mm/in	899 / 35.4	
		DEPTH		mm/in	198 / 7.8	
	PACKING DIMENSION	HEIGHT		mm/in	337 / 13.3	
		WIDTH		mm/in	957 / 37.7	
		DEPTH		mm/in	270 / 10.6	
	UNIT WEIGHT			kg/lb	12/26.46	
	CONDENSATE DRAIN SIZE			mm/in	16 / 0.63	
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.13 / 0.45	0.14 / 0.51
	WATER PRESSURE DROP			kPa	5.36	5.88
	SOUND PRESSURE LEVEL			dBA	30	31
	UNIT DIMENSION	HEIGHT		mm/in	300 / 11.81	330 / 12.99
		WIDTH		mm/in	764 / 30.08	
		DEPTH		mm/in	280 / 11.02	
	PACKING DIMENSION	HEIGHT		mm/in	361 / 14.21	391 / 15.39
		WIDTH		mm/in	838 / 32.99	
		DEPTH		mm/in	426 / 16.77	
	UNIT WEIGHT			kg/lb	32.9/ 72.53	34.9 / 76.94
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.35 / 1/4	
			GAS	mm/in	9.52 / 3/8	
REFRIGERANT CHARGE				kg/lb	0.6 /1.32	

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a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5WMWS015GR	M5WMWS020GR
		OUTDOOR UNIT			M5WSS015AR	M5WSS016AR
NOMINAL COOLING CAPACITY				Btu/h	12000	15400
				W	3443	4505
NOMINAL HEATING CAPACITY				Btu/h	12800	14800
				W	3750	4327
NOMINAL TOTAL INPUT POWER (COOLING)				W	945	1030
NOMINAL TOTAL INPUT POWER (HEATING)				W	935	990
NOMINAL RUNNING CURRENT (COOLING)				A	4.53	4.60
NOMINAL RUNNING CURRENT (HEATING)				A	4.43	4.50
POWER SOURCE				V/Ph/Hz	220-240 / 1 / 50	
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			4 WAY AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	163 / 345	231 / 490
		MEDIUM		l/s / CFM	135 / 285	193 / 410
		LOW		l/s / CFM	104 / 220	160 / 340
	SOUND PRESSURE LEVEL (H/M/L)			dBA	42 / 36 / 29	43 / 39 / 36
	UNIT DIMENSION	HEIGHT		mm/in	260 / 10.2	304 / 12.0
		WIDTH		mm/in	899 / 35.4	1062 / 41.8
		DEPTH		mm/in	198 / 7.8	222 / 8.7
	PACKING DIMENSION	HEIGHT		mm/in	337 / 13.3	378 / 14.9
		WIDTH		mm/in	957 / 37.7	1130 / 44.5
		DEPTH		mm/in	270 / 10.6	292 / 11.5
	UNIT WEIGHT			kg/lb	12/26.46	16 / 35.27
	CONDENSATE DRAIN SIZE			mm/in	16 / 0.63	20 / 0.79
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.21 / 0.75	0.26 / 0.95
	WATER PRESSURE DROP			kPa	8.12	10.35
	SOUND PRESSURE LEVEL			dBA	30	34
	UNIT DIMENSION	HEIGHT		mm/in	330 / 12.99	360 / 14.17
		WIDTH		mm/in	764 / 30.08	
		DEPTH		mm/in	280 / 11.02	
	PACKING DIMENSION	HEIGHT		mm/in	391 / 15.39	421 / 16.57
		WIDTH		mm/in	838 / 32.99	
		DEPTH		mm/in	426 / 16.77	
	UNIT WEIGHT			kg/lb	35.5/ 78.26	39.7 / 87.52
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.35 / 1/4	
			GAS	mm/in	12.7 / 1/2	
REFRIGERANT CHARGE				kg/lb	0.7 /1.54	0.725/1.6

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2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5WMWS020GR	M5WMWS025GR
		OUTDOOR UNIT			M5WSS020AR	M5WSS025AR
NOMINAL COOLING CAPACITY				Btu/h	20000	25000
				W	5848	7450
NOMINAL HEATING CAPACITY				Btu/h	21000	25000
				W	6298	7448
NOMINAL TOTAL INPUT POWER (COOLING)				W	1420	1513
NOMINAL TOTAL INPUT POWER (HEATING)				W	1570	1663
NOMINAL RUNNING CURRENT (COOLING)				A	6.3	6.8
NOMINAL RUNNING CURRENT (HEATING)				A	7.0	7.5
POWER SOURCE				V/Ph/Hz	220-240 / 1 / 50	
REFRIGERANT TYPE / CONTROL					R410A / OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			DOUBLE LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)	
		OPERATION			LCD REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	231 / 490	397 / 630
		MEDIUM		l/s / CFM	193 / 410	231 / 490
		LOW		l/s / CFM	160 / 340	208 / 440
	SOUND PRESSURE LEVEL (H/M/L)			dBA	43 / 39 / 36	49 / 44 / 42
	UNIT DIMENSION	HEIGHT		mm/in	304 / 12.0	
		WIDTH		mm/in	1062 / 41.8	
		DEPTH		mm/in	222 / 8.7	
	PACKING DIMENSION	HEIGHT		mm/in	378 / 14.9	
		WIDTH		mm/in	1130 / 44.5	
		DEPTH		mm/in	292 / 11.5	
	UNIT WEIGHT			kg/lb	16 / 35.27	
	CONDENSATE DRAIN SIZE			mm/in	20 / 0.79	
OUTDOOR UNIT	WATER FLOW RATE			l/s / m³/h	0.35 / 1.25	0.39 / 1.40
	WATER PRESSURE DROP			kPa	14.54	19.03
	SOUND PRESSURE LEVEL			dBA	37	
	UNIT DIMENSION	HEIGHT		mm/in	360 / 14.17	
		WIDTH		mm/in	764 / 30.08	
		DEPTH		mm/in	280 / 11.02	
	PACKING DIMENSION	HEIGHT		mm/in	421 / 16.57	
		WIDTH		mm/in	838 / 32.99	
		DEPTH		mm/in	426 / 16.77	
	UNIT WEIGHT			kg/lb	49.1/ 108.25	50 / 110.23
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.35 / 1/4	
			GAS	mm/in	12.7 / 1/2	15.88/5/8
REFRIGERANT CHARGE				kg/lb	0.975 /2.15	1.0/2.2

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2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - INDOOR 27.0°C DB / 19.0°C WB; ENTERING WATER TEMPERATURE 30.0°C, LEAVING WATER TEMPERATURE 35.0°C
b) HEATING - INDOOR 20.0°C DB; ENTERING WATER TEMPERATURE 20.0°C

Components Data (R410A)

MODEL	**INDOOR UNIT**				**M5CCWS010CR**	
	OUTDOOR UNIT				**M5WSS007AR**	**M5WSS010AR**
INDOOR FAN	**TYPE**				CENTRIFUGAL	
	Q'TY				1	
	MATERIAL				GALVANIZED STEEL	
	DRIVE				DIRECT	
	DIAMETER			**mm/in**	160 / 6.30	
	LENGTH			**mm/in**	202 / 7.95	
INDOOR FAN MOTOR	**TYPE**				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				N/A	
COMPRESSOR	**TYPE**				ROTARY	
	OIL TYPE				RB68A or Freol Alpha68M	
	OIL AMOUNT			**cm³ / fl.oz**	300 / 10.14	350 / 11.83
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS COPPER	
		DIAMETER		**mm/in**	9.52 / 3/8	
		THICKNESS		**mm/in**	0.33 / 0.013	
	FIN	**MATERIAL**			ALUMINIUM	
		THICKNESS		**mm/in**	0.12 / 0.0047	
		FACE AREA		**m^2/ft^2**	0.115 / 1.238	
		ROW			3	
		FIN PER INCH			12	
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER	
		QUANTITY		**pc**	1	
		SIZE	**LENGTH**	**mm/in**	560 / 22.05	
			WIDTH	**mm/in**	195 / 7.68	
			THICKNESS	**mm/in**	5 / 0.20	
CASING	**INDOOR UNIT**		**MATERIAL**		GALVANIZED STEEL	
			FINISHING		WITH PE INSULATION	
			COLOUR		WITHOUT POWDER PAINT	
	OUTDOOR UNIT		**MATERIAL**		ELETCRO GALVANISED MILD STEEL	
			FINISHING		EPOXY POLYESTER POWDER COATING	
			COLOUR		WHITE	
OUTDOOR (HEAT EXCHANGER)	**TYPE**				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			**l/s / m³/h**	0.13 / 0.45	0.14 / 0.51
	NOMINAL WATER PRESSURE DROP			**kPa / psi**	5.36 / 0.78	5.88 / 0.85
	WATER PIPE SIZE			**mm / in**	12.7 / 1/2	
	WATER INLET (BSP) MALE			**mm / in**	12.7 / 1/2	
	WATER OUTLET (BSP) MALE			**mm / in**	12.7 / 1/2	

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Components Data (R410A)

MODEL	**INDOOR UNIT**					**M5CCWS015CR**	**M5CCWS020CR**
	OUTDOOR UNIT					**M5WSS015AR**	**M5WSS016AR**
INDOOR FAN	**TYPE**					CENTRIFUGAL	
	Q'TY					2	
	MATERIAL					GALVANIZED STEEL	
	DRIVE					DIRECT	
	DIAMETER				**mm/in**	160 / 6.30	
	LENGTH				**mm/in**	202 / 7.95	
INDOOR FAN MOTOR	**TYPE**					INDUCTION	
	Q'TY					1	
	INDEX OF PROTECTION (IP)					N/A	
COMPRESSOR	**TYPE**					ROTARY	
	OIL TYPE					RB68A or Freol Alpha68M	
	OIL AMOUNT				**cm³ / fl.oz**	350 / 11.83	430 / 14.54
INDOOR COIL	**TUBE**	**MATERIAL**				SEAMLESS COPPER	
		DIAMETER			**mm/in**	9.52 / 3/8	
		THICKNESS			**mm/in**	0.33 / 0.013	
	FIN	**MATERIAL**				ALUMINIUM	
		THICKNESS			**mm/in**	0.12 / 0.0047	
		FACE AREA			**m^2/ft^2**	0.143 / 1.542	0.176 / 1.892
		ROW				3	
		FIN PER INCH				14	12
AIR QUALITY	**FILTER**	**TYPE**				WASHABLE SARANET FILTER	
		QUANTITY			**pc**	1	
		SIZE	**LENGTH**		**mm/in**	560 / 22.05	860/33.86
			WIDTH		**mm/in**	195 / 7.68	
			THICKNESS		**mm/in**	5 / 0.20	
CASING	**INDOOR UNIT**		**MATERIAL**			GALVANIZED STEEL	
			FINISHING			WITH PE INSULATION	
			COLOUR			WITHOUT POWDER PAINT	
	OUTDOOR UNIT		**MATERIAL**			ELETCRO GALVANISED MILD STEEL	
			FINISHING			EPOXY POLYESTER POWDER COATING	
			COLOUR			WHITE	
OUTDOOR (HEAT EXCHANGER)	**TYPE**					TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE				**l/s / m³/h**	0.21 / 0.75	0.26 / 0.95
	NOMINAL WATER PRESSURE DROP				**kPa / psi**	8.12 / 1.18	10.35 / 1.50
	WATER PIPE SIZE				**mm / in**	12.7 / 1/2	
	WATER INLET (BSP) MALE				**mm / in**	12.7 / 1/2	
	WATER OUTLET (BSP) MALE				**mm / in**	12.7 / 1/2	

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Components Data (R410A)

MODEL	INDOOR UNIT				M5CCWS020CR	M5CCWS025CR
	OUTDOOR UNIT				M5WSS020AR	M5WSS025AR
INDOOR FAN	TYPE				CENTRIFUGAL	
	Q'TY				2	
	MATERIAL				GALVANIZED STEEL	
	DRIVE				DIRECT	
	DIAMETER			mm/in	160 / 6.30	
	LENGTH			mm/in	202 / 7.95	
INDOOR FAN MOTOR	TYPE				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				N/A	
COMPRESSOR	TYPE				ROTARY	
	OIL TYPE				RB68A or Freol Alpha68M	
	OIL AMOUNT			cm^3 / fl.oz	470 / 15.89	
INDOOR COIL	TUBE	MATERIAL			SEAMLESS COPPER	
		DIAMETER		mm/in	9.52 / 3/8	
		THICKNESS		mm/in	0.33 / 0.013	
	FIN	MATERIAL			ALUMINIUM	
		THICKNESS		mm/in	0.12 / 0.0047	
		FACE AREA		m^2/ft^2	0.176 / 1.892	0.20 / 2.15
		ROW			3	
		FIN PER INCH			12	
AIR QUALITY	FILTER	TYPE			WASHABLE SARANET FILTER	
		QUANTITY		pc	1	
		SIZE	LENGTH	mm/in	860 / 33.86	995 / 39.17
			WIDTH	mm/in	195 / 7.68	
			THICKNESS	mm/in	5 / 0.20	
CASING	INDOOR UNIT		MATERIAL		GALVANIZED STEEL	
			FINISHING		WITH PE INSULATION	
			COLOUR		WITHOUT POWDER PAINT	
	OUTDOOR UNIT		MATERIAL		ELETCRO GALVANISED MILD STEEL	
			FINISHING		EPOXY POLYESTER POWDER COATING	
			COLOUR		WHITE	
OUTDOOR (HEAT EXCHANGER)	TYPE				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			l/s / m^3/h	0.35 / 1.25	0.39 / 1.40
	NOMINAL WATER PRESSURE DROP			kPa / psi	14.54 / 2.11	19.03 / 2.76
	WATER PIPE SIZE			mm / in	12.7 / 1/2	
	WATER INLET (BSP) MALE			mm / in	12.7 / 1/2	
	WATER OUTLET (BSP) MALE			mm / in	12.7 / 1/2	

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Components Data (R410A)

MODEL	INDOOR UNIT				M5CCWS030CR	M5CCWS040CR
	OUTDOOR UNIT				M5WSS030AR	M5WSS040AR
INDOOR FAN	TYPE				CENTRIFUGAL	
	Q'TY				2	
	MATERIAL				GALVANIZED STEEL	
	DRIVE				DIRECT	
	DIAMETER			mm/in	214 / 8.43	
	LENGTH			mm/in	203.2 / 8.00	
INDOOR FAN MOTOR	TYPE				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				N/A	
COMPRESSOR	TYPE				ROTARY	SCROLL
	OIL TYPE				RB68A or Freol Alpha68M	POE OIL
	OIL AMOUNT			cm^3 / fl.oz	700 / 23.67	1242 / 42.00
INDOOR COIL	TUBE	MATERIAL			SEAMLESS COPPER	
		DIAMETER		mm/in	9.52 / 3/8	
		THICKNESS		mm/in	0.33 / 0.013	
	FIN	MATERIAL			ALUMINIUM	
		THICKNESS		mm/in	0.12 / 0.0047	
		FACE AREA		m^2/ft^2	0.28 / 3.01	0.32 / 3.44
		ROW			3	
		FIN PER INCH			12	14
AIR QUALITY	FILTER	TYPE			WASHABLE SARANET FILTER	
		QUANTITY		pc	2	
		SIZE	LENGTH	mm/in	449 / 17.68	507 / 19.96
			WIDTH	mm/in	305 / 12.01	
			THICKNESS	mm/in	5 / 0.20	
CASING	INDOOR UNIT		MATERIAL		GALVANIZED STEEL	
			FINISHING		WITH PE INSULATION	
			COLOUR		WITHOUT POWDER PAINT	
	OUTDOOR UNIT		MATERIAL		ELETCRO GALVANISED MILD STEEL	
			FINISHING		EPOXY POLYESTER POWDER COATING	
			COLOUR		WHITE	
OUTDOOR (HEAT EXCHANGER)	TYPE				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			l/s / m^3/h	0.50 / 1.80	0.58 / 2.10
	NOMINAL WATER PRESSURE DROP			kPa / psi	30.60 / 4.44	9.49 / 1.38
	WATER PIPE SIZE			mm / in	19.05 / 3/4	
	WATER INLET (BSP) MALE			mm / in	19.05 / 3/4	
	WATER OUTLET (BSP) MALE			mm / in	19.05 / 3/4	

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Components Data (R410A)

MODEL	INDOOR UNIT				M5CCWS050CR	M5CCWS060CR
	OUTDOOR UNIT				M5WSS050AR	M5WSS060AR
INDOOR FAN	TYPE				CENTRIFUGAL	
	Q'TY				2	
	MATERIAL				GALVANIZED STEEL	
	DRIVE				DIRECT	
	DIAMETER			mm/in	214 / 8.43	
	LENGTH			mm/in	203.2 / 8.00	
INDOOR FAN MOTOR	TYPE				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				N/A	
COMPRESSOR	TYPE				SCROLL	
	OIL TYPE				POE OIL	
	OIL AMOUNT			cm^3 / fl.oz	1952 / 66.00	1656 / 56.00
INDOOR COIL	TUBE	MATERIAL			SEAMLESS COPPER	
		DIAMETER		mm/in	9.52 / 3/8	
		THICKNESS		mm/in	0.33 / 0.013	
	FIN	MATERIAL			ALUMINIUM	
		THICKNESS		mm/in	0.12 / 0.0047	
		FACE AREA		m^2/ft^2	0.41 / 4.41	0.48 / 5.17
		ROW			3	
		FIN PER INCH			14	
AIR QUALITY	FILTER	TYPE			WASHABLE SARANET FILTER	
		QUANTITY		pc	2	
		SIZE	LENGTH	mm/in	634 / 24.96	734 / 28.90
			WIDTH	mm/in	305 / 12.01	
			THICKNESS	mm/in	5 / 0.20	
CASING	INDOOR UNIT		MATERIAL		GALVANIZED STEEL	
			FINISHING		WITH PE INSULATION	
			COLOUR		WITHOUT POWDER PAINT	
	OUTDOOR UNIT		MATERIAL		ELETCRO GALVANISED MILD STEEL	
			FINISHING		EPOXY POLYESTER POWDER COATING	
			COLOUR		WHITE	
OUTDOOR (HEAT EXCHANGER)	TYPE				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			l/s / m^3/h	0.71 / 2.55	0.88 / 3.17
	NOMINAL WATER PRESSURE DROP			kPa / psi	9.59 / 1.39	18.84 / 2.73
	WATER PIPE SIZE			mm / in	19.05 / 3/4	
	WATER INLET (BSP) MALE			mm / in	19.05 / 3/4	
	WATER OUTLET (BSP) MALE			mm / in	19.05 / 3/4	

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Components Data (R410A)

MODEL	**INDOOR UNIT**					**M5CCWS040CR**	**M5CCWS050CR**
	OUTDOOR UNIT					**M5WST040AR**	**M5WST050AR**
INDOOR FAN	**TYPE**					CENTRIFUGAL	
	Q'TY					2	
	MATERIAL					GALVANISED IRON	
	DRIVE					DIRECT	DIRECT
	DIAMETER				**mm/in**	214.0 / 8.43	
	LENGTH				**mm/in**	203.2 / 8.00	
INDOOR FAN MOTOR	**TYPE**					PERMANENT SPLIT CAPACITOR	
	Q'TY					1	
	INDEX OF PROTECTION (IP)					N/A	
COMPRESSOR	**TYPE**					ROTARY	
	OIL TYPE					RB68A or Freol Alpha68M	
	OIL AMOUNT				**cm³ / fl.oz**	670 / 22.66	1130 / 38.21
INDOOR COIL	**TUBE**	**MATERIAL**				CORRUGATED PLAIN COPPER	
		DIAMETER			**mm/in**	9.52 / 3/8	
		THICKNESS			**mm/in**	0.33 / 0.013	
	FIN	**MATERIAL**				ALUMINIUM	
		THICKNESS			**mm/in**	0.12 / 0.0047	
		FACE AREA			**m^2/ft^2**	0.32 / 3.44	0.41 / 4.41
		ROW				3	
		FIN PER INCH				14	
AIR QUALITY	**FILTER**	**TYPE**				WASHABLE SARANET FILTER	
		QUANTITY			**pc**	2	
		SIZE	**LENGTH**		**mm/in**	507 / 19.96	634 / 24.96
			WIDTH		**mm/in**	305 / 12.01	
			THICKNESS		**mm/in**	5 / 0.20	
CASING	**INDOOR UNIT**		**MATERIAL**			GALVANISED IRON	
			COLOUR			N/A	
	OUTDOOR UNIT		**MATERIAL**			GALVANISED MILD STEEL	
			COLOUR			WHITE	
OUTDOOR (HEAT EXCHANGER)	**TYPE**					TUBE IN TUBE	
	NOMINAL WATER FLOW RATE				**l/s / m³/h**	0.64 / 2.3	0.81 / 2.9
	NOMINAL WATER PRESSURE DROP				**kPa / psi**	12.03 / 1.74	15.5 / 2.25
	WATER PIPE SIZE				**mm / in**	19.05 / 3/4	
	WATER INLET (BSP) MALE				**mm / in**	19.05 / 3/4	
	WATER INLET (BSP) MALE				**mm / in**	19.05 / 3/4	

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Components Data - Ceiling Concealed Heat Pump (R410A)

MODEL	**INDOOR UNIT**				**M5CCWS060CR**
	OUTDOOR UNIT				**M5WST060AR**
INDOOR FAN	**TYPE**				CENTRIFUGAL
	Q'TY				2
	MATERIAL				GALVANISED IRON
	DRIVE				DIRECT
	DIAMETER			**mm/in**	214.0 / 8.43
	LENGTH			**mm/in**	203.2 / 8.00
INDOOR FAN MOTOR	**TYPE**				PERMANENT SPLIT CAPACITOR
	Q'TY				1
	INDEX OF PROTECTION (IP)				N/A
COMPRESSOR	**TYPE**				ROTARY
	OIL TYPE				RB68A or Freol Alpha68M
	OIL AMOUNT			**cm³ / fl.oz**	1130 / 38.21
INDOOR COIL	**TUBE**	**MATERIAL**			CORRUGATED PLAIN COPPER
		DIAMETER		**mm/in**	9.52 / 3/8
		THICKNESS		**mm/in**	0.33 / 0.013
	FIN	**MATERIAL**			ALUMINIUM
		THICKNESS		**mm/in**	0.12 / 0.0047
		FACE AREA		**m^2/ft^2**	0.48 / 5.17
		ROW			3
		FIN PER INCH			14
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER
		QUANTITY		**pc**	2
		SIZE	**LENGTH**	**mm/in**	734 / 28.90
			WIDTH	**mm/in**	305 / 12.01
			THICKNESS	**mm/in**	5 / 0.20
CASING	**INDOOR UNIT**		**MATERIAL**		GALVANISED IRON
			COLOUR		N/A
	OUTDOOR UNIT		**MATERIAL**		GALVANISED MILD STEEL
			COLOUR		WHITE
OUTDOOR (HEAT EXCHANGER)	**TYPE**				TUBE IN TUBE
	NOMINAL WATER FLOW RATE			**l/s / m³/h**	0.96 / 3.45
	NOMINAL WATER PRESSURE DROP			**kPa / psi**	22.21 / 3.22
	WATER PIPE SIZE			**mm / in**	19.05 / 3/4
	WATER INLET (BSP) MALE			**mm / in**	19.05 / 3/4
	WATER INLET (BSP) MALE			**mm / in**	19.05 / 3/4

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Components Data (R410A)

MODEL	**INDOOR UNIT**				**M5CKWS020AR**	
	OUTDOOR UNIT				**M5WSS016AR**	**M5WSS020AR**
INDOOR FAN	**TYPE**				TURBO FAN	
	Q'TY				1	
	MATERIAL				ASG20	
	DRIVE				DIRECT	
	DIAMETER			**mm/in**	450 / 17.72	
	LENGTH			**mm/in**	169.5 / 6.67	
INDOOR FAN MOTOR	**TYPE**				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				IP22	
COMPRESSOR	**TYPE**				ROTARY	
	OIL TYPE				RB68A or Freol Alpha68M	
	OIL AMOUNT			**cm³ / fl.oz**	430 / 14.54	470 / 15.89
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER	
		DIAMETER		**mm/in**	7.00 / 0.276	
		THICKNESS		**mm/in**	0.28 / 0.011	
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)	
		THICKNESS		**mm/in**	0.11 / 0.0043	
		FACE AREA		**m^2/ft^2**	0.475 / 0.005	
		ROW			1	
		FIN PER INCH			20	
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER	
		QUANTITY		**pc**	1	
		SIZE	**LENGTH**	**mm/in**	576.0 / 22.7	
			WIDTH	**mm/in**	556.0 / 21.9	
			THICKNESS	**mm/in**	22.0 / 0.87	
CASING	**PANEL**			**MATERIAL**	ABS	
				FINISHING	N/A	
				COLOUR	LIGHT GREY	
	INDOOR UNIT			**MATERIAL**	GALVANIZED IRON	
				FINISHING	WITH PE INSULATION	
				COLOUR	GREY	
	OUTDOOR UNIT			**MATERIAL**	ELETCRO GALVANISED MILD STEEL	
				FINISHING	EPOXY POLYESTER POWDER COATING	
				COLOUR	WHITE	
OUTDOOR (HEAT EXCHANGER)	**TYPE**				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			**l/s / m³/h**	0.26 / 0.95	0.35 / 1.25
	NOMINAL WATER PRESSURE DROP			**kPa / psi**	10.35 / 1.50	14.54 / 2.11
	WATER PIPE SIZE			**mm / in**	12.7 / 1/2	
	WATER INLET (BSP) MALE			**mm / in**	12.7 / 1/2	
	WATER OUTLET (BSP) MALE			**mm / in**	12.7 / 1/2	

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Components Data (R410A)

MODEL	INDOOR UNIT				M5CKWS025AR	M5CKWS030AR
	OUTDOOR UNIT				M5WSS025AR	M5WSS030AR
INDOOR FAN	TYPE				TURBO FAN	
	Q'TY				1	
	MATERIAL				ASG20	
	DRIVE				DIRECT	
	DIAMETER			mm/in	450 / 17.72	
	LENGTH			mm/in	169.5 / 6.67	
INDOOR FAN MOTOR	TYPE				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				IP22	
COMPRESSOR	TYPE				ROTARY	
	OIL TYPE				RB68A or Freol Alpha68M	
	OIL AMOUNT			cm^3 / fl.oz	470 / 15.89	700 / 23.67
INDOOR COIL	TUBE	MATERIAL			SEAMLESS INNER GROOVE COPPER	
		DIAMETER		mm/in	7.00 / 0.276	
		THICKNESS		mm/in	0.28 / 0.011	
	FIN	MATERIAL			ALUMINIUM (SLIT FIN)	
		THICKNESS		mm/in	0.11 / 0.0043	
		FACE AREA		m^2/ft^2	0.475 / 0.005	0.56 / 6.03
		ROW			1	3
		FIN PER INCH			20	
AIR QUALITY	FILTER	TYPE			WASHABLE SARANET FILTER	
		QUANTITY		pc	1	
		SIZE	LENGTH	mm/in	576.0 / 22.7	
			WIDTH	mm/in	556.0 / 21.9	
			THICKNESS	mm/in	22.0 / 0.87	
CASING	PANEL			MATERIAL	ABS	
				FINISHING	N/A	
				COLOUR	LIGHT GREY	
	INDOOR UNIT			MATERIAL	GALVANIZED IRON	
				FINISHING	WITH PE INSULATION	
				COLOUR	GREY	
	OUTDOOR UNIT			MATERIAL	ELETCRO GALVANISED MILD STEEL	
				FINISHING	EPOXY POLYESTER POWDER COATING	
				COLOUR	WHITE	
OUTDOOR (HEAT EXCHANGER)	TYPE				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			l/s / m^3/h	0.39 / 1.40	0.50 / 1.80
	NOMINAL WATER PRESSURE DROP			kPa / psi	19.03 / 2.76	30.60 / 4.44
	WATER PIPE SIZE			mm / in	12.7 / 1/2	19.05 / 3/4
	WATER INLET (BSP) MALE			mm / in	12.7 / 1/2	19.05 / 3/4
	WATER OUTLET (BSP) MALE			mm / in	12.7 / 1/2	19.05 / 3/4

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Components Data (R410A)

MODEL	INDOOR UNIT				M5CKWS040AR	M5CKWS050AR
	OUTDOOR UNIT				M5WSS040AR	M5WSS050AR
INDOOR FAN	TYPE				TURBO FAN	
	Q'TY				1	
	MATERIAL				ASG20	
	DRIVE				DIRECT	
	DIAMETER			mm/in	450 / 17.72	
	LENGTH			mm/in	169.5 / 6.67	
INDOOR FAN MOTOR	TYPE				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				IP22	
COMPRESSOR	TYPE				SCROLL	
	OIL TYPE				POE OIL	
	OIL AMOUNT			cm³ / fl.oz	1242 / 42.00	1952 / 66.00
INDOOR COIL	TUBE	MATERIAL			SEAMLESS INNER GROOVE COPPER	
		DIAMETER		mm/in	7.00 / 0.276	
		THICKNESS		mm/in	0.28 / 0.011	
	FIN	MATERIAL			ALUMINIUM (SLIT FIN)	
		THICKNESS		mm/in	0.11 / 0.0043	
		FACE AREA		m^2/ft^2	0.56 / 6.03	
		ROW			3	
		FIN PER INCH			20	
AIR QUALITY	FILTER	TYPE			WASHABLE SARANET FILTER	
		QUANTITY		pc	1	
		SIZE	LENGTH	mm/in	576.0 / 22.7	
			WIDTH	mm/in	556.0 / 21.9	
			THICKNESS	mm/in	22.0 / 0.87	
CASING	PANEL			MATERIAL	ABS	
				FINISHING	N/A	
				COLOUR	LIGHT GREY	
	INDOOR UNIT			MATERIAL	GALVANIZED IRON	
				FINISHING	WITH PE INSULATION	
				COLOUR	GREY	
	OUTDOOR UNIT			MATERIAL	ELETCRO GALVANISED MILD STEEL	
				FINISHING	EPOXY POLYESTER POWDER COATING	
				COLOUR	WHITE	
OUTDOOR (HEAT EXCHANGER)	TYPE				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			l/s / m³/h	0.58 / 2.10	0.71 / 2.55
	NOMINAL WATER PRESSURE DROP			kPa / psi	9.49 / 1.38	9.59 / 1.39
	WATER PIPE SIZE			mm / in	19.05 / 3/4	
	WATER INLET (BSP) MALE			mm / in	19.05 / 3/4	
	WATER OUTLET (BSP) MALE			mm / in	19.05 / 3/4	

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Components Data (R410A)

MODEL	**INDOOR UNIT**					**M5CKWS010CR**	
	OUTDOOR UNIT					**M5WSS007AR**	**M5WSS010AR**
INDOOR FAN	**TYPE**					TURBO FAN	
	Q'TY					1	
	MATERIAL					ASG20	
	DRIVE					DIRECT	
	DIAMETER				**mm/in**	330 / 13	
	LENGTH				**mm/in**	177.76 / 7	
INDOOR FAN MOTOR	**TYPE**					INDUCTION	
	Q'TY					1	
	INDEX OF PROTECTION (IP)					-	
COMPRESSOR	**TYPE**					ROTARY	
	OIL TYPE					RB68A or Freol Alpha68M	
	OIL AMOUNT				**cm³ / fl.oz**	300 / 10.14	350 / 11.83
INDOOR COIL	**TUBE**	**MATERIAL**				SEAMLESS INNER GROOVE COPPER	
		DIAMETER			**mm/in**	7.00 / 0.276	
		THICKNESS			**mm/in**	0.28 / 0.011	
	FIN	**MATERIAL**				ALUMINIUM (SLIT FIN)	
		THICKNESS			**mm/in**	0.11 / 0.0043	
		FACE AREA			**m^2/ft^2**	0.318 / 3.42	
		ROW				1	
		FIN PER INCH				20	
AIR QUALITY	**FILTER**	**TYPE**				WASHABLE SARANET FILTER	
		QUANTITY			**pc**	1	
		SIZE	**LENGTH**		**mm/in**	367.5 / 14.5	
			WIDTH		**mm/in**	381.0 / 15.0	
			THICKNESS		**mm/in**	20.8 / 0.8	
CASING	**PANEL**				**MATERIAL**	ABS	
					FINISHING	N/A	
					COLOUR	LIGHT GREY	
	INDOOR UNIT				**MATERIAL**	GALVANIZED IRON	
					FINISHING	WITH PE INSULATION	
					COLOUR	GREY	
	OUTDOOR UNIT				**MATERIAL**	ELETCRO GALVANISED MILD STEEL	
					FINISHING	EPOXY POLYESTER POWDER COATING	
					COLOUR	WHITE	
OUTDOOR (HEAT EXCHANGER)	**TYPE**					TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE				**l/s / m³/h**	0.13 / 0.45	0.14 / 0.51
	NOMINAL WATER PRESSURE DROP				**kPa / psi**	5.36 / 0.78	5.88 / 0.85
	WATER PIPE SIZE				**mm / in**	12.7 / 1/2	
	WATER INLET (BSP) MALE				**mm / in**	12.7 / 1/2	
	WATER OUTLET (BSP) MALE				**mm / in**	12.7 / 1/2	

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Components Data (R410A)

MODEL	**INDOOR UNIT**				**M5CKWS015CR**	**M5CKWS020CR**
	OUTDOOR UNIT				**M5WSS015AR**	**M5WSS016AR**
INDOOR FAN	**TYPE**				TURBO FAN	
	Q'TY				1	
	MATERIAL				ASG20	
	DRIVE				DIRECT	
	DIAMETER			**mm/in**	330 / 13	
	LENGTH			**mm/in**	177.76 / 7	
INDOOR FAN MOTOR	**TYPE**				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				-	
COMPRESSOR	**TYPE**				ROTARY	
	OIL TYPE				RB68A or Freol Alpha68M	
	OIL AMOUNT			**cm³ / fl.oz**	350 / 11.83	430 / 14.54
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER	
		DIAMETER		**mm/in**	7.00 / 0.276	
		THICKNESS		**mm/in**	0.28 / 0.011	
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)	
		THICKNESS		**mm/in**	0.11 / 0.0043	
		FACE AREA		**m^2/ft^2**	0.318 / 3.42	
		ROW			2	
		FIN PER INCH			20	
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER	
		QUANTITY		**pc**	1	
		SIZE	**LENGTH**	**mm/in**	367.5 / 14.5	
			WIDTH	**mm/in**	381.0 / 15.0	
			THICKNESS	**mm/in**	20.8 / 0.8	
CASING	**PANEL**			**MATERIAL**	ABS	
				FINISHING	N/A	
				COLOUR	LIGHT GREY	
	INDOOR UNIT			**MATERIAL**	GALVANIZED IRON	
				FINISHING	WITH PE INSULATION	
				COLOUR	GREY	
	OUTDOOR UNIT			**MATERIAL**	ELETCRO GALVANISED MILD STEEL	
				FINISHING	EPOXY POLYESTER POWDER COATING	
				COLOUR	WHITE	
OUTDOOR (HEAT EXCHANGER)	**TYPE**				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			**l/s / m³/h**	0.21 / 0.75	0.26 / 0.95
	NOMINAL WATER PRESSURE DROP			**kPa / psi**	8.12 / 1.18	10.35 / 1.50
	WATER PIPE SIZE			**mm / in**	12.7 / 1/2	
	WATER INLET (BSP) MALE			**mm / in**	12.7 / 1/2	
	WATER OUTLET (BSP) MALE			**mm / in**	12.7 / 1/2	

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Components Data (R410A)

MODEL	**INDOOR UNIT**				**M5CKWS020CR**
	OUTDOOR UNIT				**M5WSS020AR**
INDOOR FAN	**TYPE**				TURBO FAN
	Q'TY				1
	MATERIAL				ASG20
	DRIVE				DIRECT
	DIAMETER			**mm/in**	330 / 13
	LENGTH			**mm/in**	177.76 / 7
INDOOR FAN MOTOR	**TYPE**				INDUCTION
	Q'TY				1
	INDEX OF PROTECTION (IP)				-
COMPRESSOR	**TYPE**				ROTARY
	OIL TYPE				RB68A or Freol Alpha68M
	OIL AMOUNT			**cm³ / fl.oz**	470 / 15.89
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)
		THICKNESS		**mm/in**	0.11 / 0.0043
		FACE AREA		**m^2/ft^2**	0.318 / 3.42
		ROW			2
		FIN PER INCH			20
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER
		QUANTITY		**pc**	1
		SIZE	**LENGTH**	**mm/in**	367.5 / 14.5
			WIDTH	**mm/in**	381.0 / 15.0
			THICKNESS	**mm/in**	20.8 / 0.8
CASING	**PANEL**			**MATERIAL**	ABS
				FINISHING	N/A
				COLOUR	LIGHT GREY
	INDOOR UNIT			**MATERIAL**	GALVANIZED IRON
				FINISHING	WITH PE INSULATION
				COLOUR	GREY
	OUTDOOR UNIT			**MATERIAL**	ELETCRO GALVANISED MILD STEEL
				FINISHING	EPOXY POLYESTER POWDER COATING
				COLOUR	WHITE
OUTDOOR (HEAT EXCHANGER)	**TYPE**				TUBE IN TUBE (COAXIAL COIL)
	NOMINAL WATER FLOW RATE			**l/s / m³/h**	0.35 / 1.25
	NOMINAL WATER PRESSURE DROP			**kPa / psi**	14.54 / 2.11
	WATER PIPE SIZE			**mm / in**	12.7 / 1/2
	WATER INLET (BSP) MALE			**mm / in**	12.7 / 1/2
	WATER OUTLET (BSP) MALE			**mm / in**	12.7 / 1/2

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Components Data (R410A)

MODEL	**INDOOR UNIT**				**M5WMWS010GR**	
	OUTDOOR UNIT				**M5WSS007AR**	**M5WSS010AR**
INDOOR FAN	**TYPE**				ANTI FUNGUS SKEW FAN	
	Q'TY				1	
	MATERIAL				ACRYLO NITRILE STYRENE	
	DRIVE				DIRECT	
	DIAMETER			**mm/in**	97/3.8	
	LENGTH			**mm/in**	717.5/28.2	
INDOOR FAN MOTOR	**TYPE**				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				IP24	
COMPRESSOR	**TYPE**				ROTARY	
	OIL TYPE				RB68A or Freol Alpha68M	
	OIL AMOUNT			**cm³ / fl.oz**	300 / 10.14	350 / 11.83
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS COPPER TUBE	
		DIAMETER		**mm/in**	7.00 / 0.276	
		THICKNESS		**mm/in**	0.28 / 0.011	
	FIN	**MATERIAL**			ALUMINIUM (HYDROPHILIC SLIT FIN TYPE)	
		THICKNESS		**mm/in**	0.11 / 0.0043	
		FACE AREA		**m^2/ft^2**	0.234/ 2.516	
		ROW			2	
		FIN PER INCH			18	
AIR QUALITY	**FILTER**	**TYPE**			NANO FILTER	
		QUANTITY		**pc**	2	
		SIZE	**LENGTH**	**mm/in**	304 / 11.9	
			WIDTH	**mm/in**	348 / 13.7	
			THICKNESS	**mm/in**	1.5/0.06	
	NEGATIVE IONIZER				YES	
CASING	**INDOOR UNIT**	**MATERIAL**			HIPS	
		COLOUR			IVORY	
	OUTDOOR UNIT	**MATERIAL**			ELETCRO GALVANISED MILD STEEL	
		COLOUR			WHITE	
OUTDOOR (HEAT EXCHANGER)	**TYPE**				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			**l/s / m³/h**	0.13 / 0.45	0.14 / 0.51
	NOMINAL WATER PRESSURE DROP			**kPa / psi**	5.36 / 0.78	5.88 / 0.85
	WATER PIPE SIZE			**mm / in**	12.7 / 1/2	
	WATER INLET (BSP) MALE			**mm / in**	12.7 / 1/2	
	WATER OUTLET (BSP) MALE			**mm / in**	12.7 / 1/2	

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Components Data (R410A)

MODEL	**INDOOR UNIT**				**M5WMWS015GR**	**M5WMWS020GR**
	OUTDOOR UNIT				**M5WSS015AR**	**M5WSS016AR**
INDOOR FAN	**TYPE**				ANTI FUNGUS SKEW FAN	
	Q'TY				1	
	MATERIAL				ACRYLO NITRILE STYRENE	
	DRIVE				DIRECT	
	DIAMETER			**mm/in**	97/3.8	108 / 4.25
	LENGTH			**mm/in**	717.5/28.2	810 / 31.9
INDOOR FAN MOTOR	**TYPE**				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				IP24	IP20
COMPRESSOR	**TYPE**				ROTARY	
	OIL TYPE				RB68A or Freol Alpha68M	
	OIL AMOUNT			**cm³ / fl.oz**	350 / 11.83	430 / 14.54
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS COPPER TUBE	
		DIAMETER		**mm/in**	7.0 / 0.276	
		THICKNESS		**mm/in**	0.28 / 0.011	
	FIN	**MATERIAL**			ALUMINIUM (HYDROPHILIC SLIT FIN TYPE)	
		THICKNESS		**mm/in**	0.11 / 0.0043	
		FACE AREA		**m^2/ft^2**	0.234 / 2.516	0.269 / 2.900
		ROW			2	
		FIN PER INCH			18	
AIR QUALITY	**FILTER**	**TYPE**			NANO FILTER	
		QUANTITY		**pc**	2	
		SIZE	**LENGTH**	**mm/in**	304 / 11.9	351 / 13.8
			WIDTH	**mm/in**	348 / 13.7	386 / 15.2
			THICKNESS	**mm/in**	1.5/0.06	
	NEGATIVE IONIZER				YES	
CASING	**INDOOR UNIT**	**MATERIAL**			HIPS	
		COLOUR			IVORY	
	OUTDOOR UNIT	**MATERIAL**			ELETCRO GALVANISED MILD STEEL	
		COLOUR			WHITE	
OUTDOOR (HEAT EXCHANGER)	**TYPE**				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			**l/s / m³/h**	0.21 / 0.75	0.26 / 0.95
	NOMINAL WATER PRESSURE DROP			**kPa / psi**	8.12 / 1.18	10.35 / 1.50
	WATER PIPE SIZE			**mm / in**	12.7 / 1/2	
	WATER INLET (BSP) MALE			**mm / in**	12.7 / 1/2	
	WATER OUTLET (BSP) MALE			**mm / in**	12.7 / 1/2	

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Components Data (R410A)

MODEL	**INDOOR UNIT**				**M5WMWS020GR**	**M5WMWS025GR**
	OUTDOOR UNIT				**M5WSS020AR**	**M5WSS025AR**
INDOOR FAN	**TYPE**				ANTI FUNGUS SKEW FAN	
	Q'TY				1	
	MATERIAL				ACRYLO NITRILE STYRENE	
	DRIVE				DIRECT	
	DIAMETER			**mm/in**	108/4.25	
	LENGTH			**mm/in**	810/31.9	
INDOOR FAN MOTOR	**TYPE**				INDUCTION	
	Q'TY				1	
	INDEX OF PROTECTION (IP)				IP20	
COMPRESSOR	**TYPE**				ROTARY	
	OIL TYPE				RB68A or Freol Alpha68M	
	OIL AMOUNT			**cm³ / fl.oz**	470 / 15.89	
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS COPPER TUBE	
		DIAMETER		**mm/in**	7.0 / 0.276	
		THICKNESS		**mm/in**	0.28 / 0.011	
	FIN	**MATERIAL**			ALUMINIUM (HYDROPHILIC SLIT FIN TYPE)	
		THICKNESS		**mm/in**	0.11 / 0.0043	
		FACE AREA		**m^2/ft^2**	0.269 / 2.900	
		ROW			2	
		FIN PER INCH			18	
AIR QUALITY	**FILTER**	**TYPE**			NANO FILTER	
		QUANTITY		**pc**	2	
		SIZE	**LENGTH**	**mm/in**	351 / 13.8	
			WIDTH	**mm/in**	386 / 15.2	
			THICKNESS	**mm/in**	1.5/0.06	
	NEGATIVE IONIZER				YES	
CASING	**INDOOR UNIT**	**MATERIAL**			HIPS	
		COLOUR			IVORY	
	OUTDOOR UNIT	**MATERIAL**			ELETCRO GALVANISED MILD STEEL	
		COLOUR			WHITE	
OUTDOOR (HEAT EXCHANGER)	**TYPE**				TUBE IN TUBE (COAXIAL COIL)	
	NOMINAL WATER FLOW RATE			**l/s / m³/h**	0.35 / 1.25	0.39 / 1.40
	NOMINAL WATER PRESSURE DROP			**kPa / psi**	14.54 / 2.11	19.03 / 2.76
	WATER PIPE SIZE			**mm / in**	12.7 / 1/2	
	WATER INLET (BSP) MALE			**mm / in**	12.7 / 1/2	
	WATER OUTLET (BSP) MALE			**mm / in**	12.7 / 1/2	

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Safety Devices

MODEL	INDOOR UNIT			M5CCWS010CR	M5CCWS010CR
	OUTDOOR UNIT			M5WSS007AR	M5WSS010AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	Pa / psi	N/A	
		CLOSE	Pa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5CCWS015CR	M5CCWS020CR
	OUTDOOR UNIT			M5WSS015AR	M5WSS016AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	Pa / psi	N/A	
		CLOSE	Pa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5CCWS020CR	M5CCWS025CR
	OUTDOOR UNIT			M5WSS020AR	M5WSS025AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	Pa / psi	N/A	
		CLOSE	Pa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5CCWS030CR	M5CCWS040CR
	OUTDOOR UNIT			M5WSS030AR	M5WSS040AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		NO	
		OPEN	Pa / psi	48 / 7	
		CLOSE	Pa / psi	152 / 22	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5CCWS050CR	M5CCWS060CR
	OUTDOOR UNIT			M5WSS050AR	M5WSS060AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		NO	
		OPEN	Pa / psi	48 / 7	
		CLOSE	Pa / psi	152 / 22	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

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Safety Devices (R410A)

MODEL	INDOOR UNIT			M5CCWS040CR	M5CCWS050CR
	OUTDOOR UNIT			M5WST040AR	M5WST050AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		NO	
		OPEN	Pa / psi	48 / 7	
		CLOSE	Pa / psi	152 / 22	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5CCWS060CR
	OUTDOOR UNIT			M5WST060AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC
		OPEN	Pa / psi	4137 / 600
		CLOSE	Pa / psi	3309 / 480
	LOW PRESSURE SWITCH	TYPE		NO
		OPEN	Pa / psi	48 / 7
		CLOSE	Pa / psi	152 / 22
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

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Safety Devices

MODEL	INDOOR UNIT			M5CKWS020AR	
	OUTDOOR UNIT			M5WSS016AR	M5WSS020AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	Pa / psi	N/A	
		CLOSE	Pa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5CKWS025AR	M5CKWS030AR
	OUTDOOR UNIT			M5WSS025AR	M5WSS030AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	NO
		OPEN	Pa / psi	N/A	48 / 7
		CLOSE	Pa / psi	N/A	152 / 22
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5CKWS040AR	M5CKWS050AR
	OUTDOOR UNIT			M5WSS040AR	M5WSS050AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		NO	
		OPEN	Pa / psi	48 / 7	
		CLOSE	Pa / psi	152 / 22	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

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Safety Devices

MODEL	INDOOR UNIT			M5CKWS010CR	
	OUTDOOR UNIT			M5WSS007AR	M5WSS010AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	Pa / psi	N/A	
		CLOSE	Pa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5CKWS015CR	M5CKWS020CR
	OUTDOOR UNIT			M5WSS015AR	M5WSS016AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	Pa / psi	N/A	
		CLOSE	Pa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5CKWS020CR
	OUTDOOR UNIT			M5WSS020AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC
		OPEN	Pa / psi	4137 / 600
		CLOSE	Pa / psi	3309 / 480
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	Pa / psi	N/A
		CLOSE	Pa / psi	N/A
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Safety Devices

MODEL	INDOOR UNIT			M5WMWS010GR	
	OUTDOOR UNIT			M5WSS007AR	M5WSS010AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	Pa / psi	N/A	
		CLOSE	Pa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5WMWS015GR	M5WMWS020GR
	OUTDOOR UNIT			M5WSS015AR	M5WSS016AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	Pa / psi	N/A	
		CLOSE	Pa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			M5WMWS020GR	M5WMWS025GR
	OUTDOOR UNIT			M5WSS020AR	M5WSS025AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	Pa / psi	4137 / 600	
		CLOSE	Pa / psi	3309 / 480	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	Pa / psi	N/A	
		CLOSE	Pa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Performance Data

Performance Tables

M5CCWS010CR/M5WSS007AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.27 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.35	2.25	2.17	2.10	1.99	1.87	1.75
		SC	2.30	2.20	2.14	2.07	1.96	1.86	1.75
	17	TC	2.44	2.33	2.25	2.17	2.04	1.92	1.79
		SC	2.11	2.04	1.99	1.94	1.86	1.78	1.70
	19	TC	2.55	2.44	2.35	2.27	2.12	1.97	1.83
		SC	1.85	1.81	1.78	1.75	1.71	1.67	1.63
	20	TC	2.58	2.48	2.40	2.33	2.19	2.05	1.91
		SC	1.70	1.66	1.63	1.60	1.57	1.53	1.49
	23	TC	2.67	2.60	2.55	2.51	2.40	2.28	2.17
		SC	1.25	1.23	1.21	1.19	1.16	1.13	1.10
	24	TC	2.70	2.64	2.61	2.57	2.46	2.36	2.26
		SC	1.11	1.09	1.07	1.06	1.03	1.00	0.97

Water Flow Rate = 0.45 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.46	2.35	2.27	2.20	2.08	1.96	1.84
		SC	2.40	2.31	2.24	2.17	2.05	1.94	1.83
	17	TC	2.55	2.43	2.35	2.27	2.14	2.00	1.87
		SC	2.20	2.13	2.08	2.02	1.94	1.86	1.78
	19	TC	2.67	2.55	2.46	2.37	2.22	2.06	1.91
		SC	1.93	1.89	1.86	1.82	1.79	1.74	1.70
	20	TC	2.70	2.59	2.51	2.43	2.29	2.15	2.00
		SC	1.77	1.73	1.70	1.68	1.64	1.60	1.56
	23	TC	2.79	2.72	2.67	2.62	2.50	2.39	2.27
		SC	1.31	1.28	1.26	1.25	1.21	1.18	1.15
	24	TC	2.82	2.76	2.72	2.68	2.58	2.47	2.36
		SC	1.16	1.14	1.12	1.11	1.08	1.04	1.01

Water Flow Rate = 0.63 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	2.51	2.40	2.32	2.25	2.12	2.00	1.87
		SC	2.45	2.36	2.28	2.21	2.10	1.99	1.87
	17	TC	2.60	2.49	2.40	2.32	2.18	2.05	1.91
		SC	2.25	2.17	2.12	2.07	1.98	1.90	1.82
	19	TC	2.73	2.60	2.51	2.42	2.27	2.11	1.95
		SC	1.98	1.93	1.90	1.86	1.83	1.78	1.74
	20	TC	2.76	2.65	2.57	2.49	2.34	2.19	2.04
		SC	1.81	1.77	1.74	1.71	1.67	1.63	1.59
	23	TC	2.85	2.78	2.73	2.68	2.56	2.44	2.32
		SC	1.34	1.31	1.29	1.27	1.24	1.20	1.17
	24	TC	2.88	2.82	2.78	2.74	2.63	2.52	2.41
		SC	1.18	1.16	1.15	1.13	1.10	1.07	1.03

Note:
1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS010CR/M5WSS010AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.31 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.90	2.78	2.69	2.60	2.46	2.31	2.17
		SC	2.84	2.73	2.64	2.56	2.43	2.30	2.17
	17	TC	3.01	2.88	2.78	2.69	2.53	2.37	2.21
		SC	2.60	2.52	2.45	2.39	2.30	2.20	2.10
	19	TC	3.16	3.01	2.91	2.80	2.62	2.44	2.26
		SC	2.29	2.23	2.20	1.99	2.11	2.06	2.02
	20	TC	3.19	3.06	2.97	2.88	2.71	2.54	2.37
		SC	2.10	2.05	2.02	1.98	1.94	1.89	1.85
	23	TC	3.30	3.22	3.16	3.10	2.96	2.82	2.69
		SC	1.55	1.52	1.49	1.47	1.43	1.39	1.35
	24	TC	3.34	3.27	3.22	3.17	3.05	2.92	2.79
		SC	1.37	1.35	1.33	1.31	1.27	1.23	1.20

Water Flow Rate = 0.51 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.04	2.91	2.81	2.72	2.57	2.42	2.27
		SC	2.97	2.85	2.76	2.68	2.54	2.40	2.27
	17	TC	3.15	3.01	2.91	2.81	2.64	2.48	2.31
		SC	2.72	2.63	2.57	2.50	2.40	2.30	2.20
	19	TC	3.30	3.15	3.04	2.93	2.74	2.55	2.36
		SC	2.39	2.34	2.30	2.08	2.21	2.16	2.11
	20	TC	3.34	3.20	3.11	3.01	2.83	2.65	2.47
		SC	2.19	2.14	2.11	2.07	2.02	1.98	1.93
	23	TC	3.45	3.36	3.30	3.24	3.10	2.95	2.81
		SC	1.62	1.59	1.56	1.54	1.50	1.46	1.42
	24	TC	3.49	3.42	3.37	3.32	3.19	3.05	2.92
		SC	1.43	1.41	1.39	1.37	1.33	1.29	1.25

Water Flow Rate = 0.71 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	3.10	2.97	2.87	2.78	2.62	2.47	2.32
		SC	3.04	2.91	2.82	2.74	2.59	2.45	2.31
	17	TC	3.22	3.07	2.97	2.87	2.70	2.53	2.36
		SC	2.78	2.69	2.62	2.56	2.45	2.35	2.25
	19	TC	3.37	3.22	3.11	2.99	2.80	2.61	2.41
		SC	2.44	2.39	2.35	2.13	2.26	2.20	2.15
	20	TC	3.41	3.27	3.17	3.07	2.89	2.71	2.53
		SC	2.24	2.19	2.15	2.12	2.07	2.02	1.97
	23	TC	3.53	3.44	3.37	3.31	3.16	3.02	2.87
		SC	1.65	1.62	1.60	1.57	1.53	1.49	1.45
	24	TC	3.56	3.49	3.44	3.39	3.25	3.12	2.98
		SC	1.46	1.44	1.42	1.40	1.36	1.32	1.28

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS015CR/M5WSS015AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.45 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.55	3.39	3.29	3.18	3.00	2.83	2.65
		SC	3.47	3.33	3.23	3.13	2.97	2.81	2.65
	17	TC	3.68	3.52	3.40	3.28	3.09	2.89	2.70
		SC	3.18	3.07	3.00	2.92	2.80	2.69	2.57
	19	TC	3.86	3.68	3.55	3.42	3.20	2.98	2.76
		SC	2.79	2.73	2.69	2.64	2.58	2.52	2.46
	20	TC	3.90	3.74	3.63	3.51	3.31	3.10	2.89
		SC	2.56	2.50	2.46	2.42	2.36	2.31	2.25
	23	TC	4.03	3.93	3.86	3.79	3.62	3.45	3.28
		SC	1.89	1.85	1.83	1.80	1.75	1.70	1.66
	24	TC	4.08	3.99	3.94	3.88	3.72	3.57	3.41
		SC	1.67	1.64	1.62	1.60	1.55	1.51	1.46

Water Flow Rate = 0.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.71	3.55	3.44	3.32	3.14	2.96	2.77
		SC	3.63	3.48	3.38	3.27	3.10	2.94	2.77
	17	TC	3.85	3.68	3.55	3.43	3.23	3.03	2.82
		SC	3.33	3.21	3.14	3.06	2.93	2.81	2.69
	19	TC	4.04	3.85	3.71	3.58	3.35	3.12	2.89
		SC	2.92	2.86	2.81	2.76	2.70	2.64	2.58
	20	TC	4.08	3.91	3.79	3.67	3.46	3.24	3.02
		SC	2.68	2.62	2.57	2.53	2.47	2.41	2.36
	23	TC	4.22	4.11	4.03	3.96	3.78	3.61	3.43
		SC	1.98	1.94	1.91	1.88	1.83	1.78	1.73
	24	TC	4.26	4.18	4.12	4.05	3.89	3.73	3.57
		SC	1.75	1.72	1.70	1.68	1.63	1.58	1.53

Water Flow Rate = 1.05 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	3.79	3.63	3.51	3.39	3.21	3.02	2.83
		SC	3.71	3.56	3.45	3.34	3.17	3.00	2.83
	17	TC	3.93	3.76	3.63	3.51	3.30	3.09	2.88
		SC	3.40	3.28	3.20	3.12	3.00	2.87	2.74
	19	TC	4.12	3.93	3.79	3.66	3.42	3.19	2.95
		SC	2.99	2.92	2.87	2.82	2.76	2.69	2.63
	20	TC	4.17	4.00	3.88	3.75	3.53	3.31	3.09
		SC	2.74	2.67	2.63	2.59	2.53	2.47	2.41
	23	TC	4.31	4.20	4.12	4.04	3.86	3.69	3.51
		SC	2.02	1.98	1.95	1.92	1.87	1.82	1.77
	24	TC	4.35	4.27	4.20	4.14	3.98	3.81	3.64
		SC	1.79	1.76	1.73	1.71	1.66	1.61	1.56

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS020CR/M5WSS016AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.57 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	4.59	4.39	4.25	4.11	3.88	3.65	3.43
		SC	4.49	4.31	4.18	4.05	3.84	3.63	3.42
	17	TC	4.76	4.55	4.40	4.24	3.99	3.74	3.49
		SC	4.11	3.98	3.88	3.78	3.63	3.47	3.32
	19	TC	4.99	4.76	4.59	4.43	4.14	3.86	3.57
		SC	3.61	3.53	3.47	3.45	3.34	3.26	3.18
	20	TC	5.05	4.84	4.69	4.54	4.28	4.01	3.74
		SC	3.31	3.24	3.18	3.13	3.06	2.99	2.92
	23	TC	5.21	5.08	4.99	4.90	4.68	4.46	4.24
		SC	2.44	2.40	2.36	2.33	2.26	2.20	2.14
	24	TC	5.27	5.16	5.09	5.01	4.81	4.61	4.41
		SC	2.16	2.13	2.10	2.07	2.01	1.95	1.89

Water Flow Rate = 0.95 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	4.80	4.59	4.44	4.30	4.06	3.82	3.59
		SC	4.69	4.50	4.37	4.23	4.01	3.80	3.58
	17	TC	4.98	4.76	4.60	4.44	4.18	3.91	3.65
		SC	4.30	4.16	4.06	3.96	3.79	3.63	3.47
	19	TC	5.22	4.98	4.80	4.63	4.33	4.03	3.73
		SC	3.78	3.69	3.63	3.61	3.49	3.41	3.33
	20	TC	5.28	5.06	4.91	4.75	4.47	4.19	3.91
		SC	3.47	3.39	3.33	3.28	3.20	3.12	3.05
	23	TC	5.45	5.32	5.22	5.12	4.89	4.67	4.44
		SC	2.56	2.51	2.47	2.43	2.37	2.30	2.24
	24	TC	5.51	5.40	5.32	5.24	5.03	4.82	4.61
		SC	2.26	2.22	2.20	2.17	2.10	2.04	1.98

Water Flow Rate = 1.33 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	4.90	4.69	4.54	4.39	4.15	3.90	3.66
		SC	4.80	4.60	4.46	4.32	4.10	3.88	3.66
	17	TC	5.09	4.86	4.70	4.53	4.27	4.00	3.73
		SC	4.39	4.25	4.14	4.04	3.88	3.71	3.55
	19	TC	5.33	5.08	4.91	4.73	4.43	4.12	3.82
		SC	3.86	3.77	3.71	3.69	3.57	3.48	3.40
	20	TC	5.39	5.17	5.01	4.86	4.57	4.28	4.00
		SC	3.54	3.46	3.40	3.35	3.27	3.19	3.12
	23	TC	5.57	5.43	5.33	5.23	5.00	4.77	4.53
		SC	2.61	2.56	2.52	2.49	2.42	2.35	2.29
	24	TC	5.63	5.52	5.44	5.36	5.14	4.93	4.71
		SC	2.31	2.27	2.24	2.21	2.15	2.08	2.02

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS020CR/M5WSS020AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	5.96	5.70	5.52	5.33	5.04	4.74	4.45
		SC	5.83	5.59	5.42	5.25	4.98	4.71	4.44
	17	TC	6.18	5.90	5.71	5.51	5.18	4.86	4.53
		SC	5.34	5.16	5.03	4.91	4.71	4.51	4.31
	19	TC	6.48	6.18	5.96	5.75	5.38	5.01	4.64
		SC	4.69	4.58	4.51	4.20	4.33	4.23	4.13
	20	TC	6.55	6.28	6.09	5.90	5.55	5.20	4.85
		SC	4.30	4.20	4.13	4.07	3.97	3.88	3.79
	23	TC	6.77	6.60	6.48	6.36	6.07	5.79	5.51
		SC	3.17	3.11	3.06	3.02	2.94	2.86	2.78
	24	TC	6.84	6.70	6.61	6.51	6.25	5.99	5.73
		SC	2.81	2.76	2.73	2.69	2.61	2.53	2.45

Water Flow Rate = 1.25 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	6.23	5.96	5.77	5.58	5.27	4.96	4.65
		SC	6.09	5.85	5.67	5.49	5.21	4.93	4.65
	17	TC	6.46	6.17	5.97	5.76	5.42	5.08	4.74
		SC	5.58	5.40	5.26	5.13	4.92	4.72	4.51
	19	TC	6.77	6.46	6.23	6.01	5.62	5.24	4.85
		SC	4.91	4.79	4.72	4.39	4.53	4.42	4.32
	20	TC	6.85	6.57	6.37	6.17	5.80	5.44	5.08
		SC	4.50	4.39	4.32	4.25	4.15	4.05	3.96
	23	TC	7.08	6.90	6.77	6.65	6.35	6.06	5.76
		SC	3.32	3.25	3.20	3.16	3.07	2.99	2.91
	24	TC	7.15	7.01	6.91	6.81	6.53	6.26	5.99
		SC	2.94	2.89	2.85	2.81	2.73	2.65	2.57

Water Flow Rate = 1.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	6.36	6.09	5.89	5.70	5.38	5.07	4.75
		SC	6.23	5.97	5.79	5.61	5.32	5.03	4.75
	17	TC	6.60	6.31	6.10	5.89	5.54	5.19	4.84
		SC	5.70	5.51	5.38	5.24	5.03	4.82	4.61
	19	TC	6.92	6.60	6.37	6.14	5.74	5.35	4.95
		SC	5.01	4.90	4.82	4.48	4.63	4.52	4.42
	20	TC	7.00	6.71	6.51	6.30	5.93	5.56	5.19
		SC	4.60	4.49	4.42	4.34	4.24	4.14	4.04
	23	TC	7.23	7.05	6.92	6.79	6.49	6.19	5.88
		SC	3.39	3.32	3.27	3.23	3.14	3.05	2.97
	24	TC	7.31	7.16	7.06	6.95	6.67	6.40	6.12
		SC	3.00	2.95	2.91	2.87	2.79	2.70	2.62

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS025CR/M5WSS025AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.84 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	7.55	7.23	6.99	6.76	6.39	6.02	5.64
		SC	7.39	7.09	6.87	6.66	6.32	5.98	5.63
	17	TC	7.83	7.49	7.24	6.99	6.57	6.16	5.74
		SC	6.77	6.54	6.38	6.22	5.97	5.72	5.47
	19	TC	8.21	7.83	7.56	7.29	6.82	6.35	5.88
		SC	5.95	5.81	5.72	5.54	5.49	5.36	5.24
	20	TC	8.31	7.97	7.72	7.48	7.04	6.60	6.15
		SC	5.45	5.33	5.24	5.16	5.03	4.91	4.80
	23	TC	8.58	8.37	8.21	8.06	7.70	7.34	6.98
		SC	4.02	3.94	3.89	3.83	3.72	3.62	3.52
	24	TC	8.67	8.50	8.38	8.25	7.92	7.59	7.26
		SC	3.56	3.50	3.46	3.41	3.31	3.21	3.11

Water Flow Rate = 1.40 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	7.90	7.56	7.31	7.07	6.68	6.29	5.90
		SC	7.73	7.41	7.19	6.96	6.61	6.25	5.89
	17	TC	8.19	7.83	7.57	7.31	6.87	6.44	6.01
		SC	7.08	6.84	6.68	6.51	6.24	5.98	5.72
	19	TC	8.59	8.19	7.90	7.62	7.13	6.64	6.15
		SC	6.22	6.08	5.98	5.79	5.74	5.61	5.48
	20	TC	8.68	8.33	8.08	7.82	7.36	6.90	6.44
		SC	5.70	5.57	5.48	5.39	5.26	5.14	5.02
	23	TC	8.97	8.75	8.59	8.43	8.05	7.68	7.30
		SC	4.21	4.12	4.06	4.00	3.89	3.79	3.68
	24	TC	9.07	8.89	8.76	8.63	8.28	7.94	7.59
		SC	3.73	3.66	3.61	3.57	3.46	3.36	3.25

Water Flow Rate = 1.96 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	8.07	7.72	7.47	7.22	6.82	6.43	6.03
		SC	7.89	7.57	7.34	7.11	6.75	6.38	6.02
	17	TC	8.37	8.00	7.73	7.46	7.02	6.58	6.14
		SC	7.23	6.99	6.82	6.65	6.38	6.11	5.84
	19	TC	8.77	8.37	8.08	7.78	7.28	6.78	6.28
		SC	6.36	6.21	6.11	5.92	5.87	5.73	5.60
	20	TC	8.87	8.51	8.25	7.99	7.52	7.05	6.58
		SC	5.83	5.69	5.60	5.51	5.38	5.25	5.13
	23	TC	9.17	8.94	8.77	8.61	8.23	7.84	7.46
		SC	4.30	4.21	4.15	4.09	3.98	3.87	3.76
	24	TC	9.27	9.08	8.95	8.82	8.46	8.11	7.76
		SC	3.81	3.74	3.69	3.64	3.54	3.43	3.32

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS030CR/M5WSS030AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 1.08 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	8.86	8.48	8.20	7.93	7.49	7.06	6.62
		SC	8.67	8.32	8.06	7.81	7.41	7.01	6.61
	17	TC	9.19	8.78	8.49	8.20	7.71	7.22	6.74
		SC	7.94	7.68	7.49	7.30	7.00	6.71	6.42
	19	TC	9.64	9.19	8.87	8.55	8.00	7.45	6.90
		SC	6.98	6.82	6.71	6.50	6.45	6.29	6.15
	20	TC	9.74	9.35	9.06	8.78	8.26	7.74	7.22
		SC	6.40	6.25	6.15	6.05	5.90	5.76	5.63
	23	TC	10.07	9.82	9.64	9.46	9.03	8.61	8.19
		SC	4.72	4.63	4.56	4.49	4.37	4.25	4.13
	24	TC	10.18	9.97	9.83	9.68	9.29	8.91	8.52
		SC	4.18	4.11	4.05	4.00	3.88	3.77	3.65

Water Flow Rate = 1.80 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	9.26	8.86	8.58	8.29	7.84	7.38	6.92
		SC	9.06	8.70	8.43	8.17	7.75	7.33	6.91
	17	TC	9.61	9.18	8.88	8.57	8.06	7.55	7.05
		SC	8.31	8.03	7.83	7.64	7.32	7.01	6.71
	19	TC	10.08	9.61	9.27	8.94	8.36	7.79	7.21
		SC	7.30	7.13	7.01	6.79	6.74	6.58	6.43
	20	TC	10.19	9.77	9.47	9.18	8.63	8.09	7.55
		SC	6.69	6.54	6.43	6.33	6.17	6.03	5.89
	23	TC	10.53	10.26	10.08	9.89	9.45	9.01	8.57
		SC	4.94	4.84	4.77	4.70	4.57	4.44	4.32
	24	TC	10.64	10.43	10.28	10.12	9.72	9.31	8.91
		SC	4.37	4.29	4.24	4.18	4.06	3.94	3.82

Water Flow Rate = 2.52 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	9.46	9.06	8.76	8.47	8.01	7.54	7.07
		SC	9.26	8.88	8.62	8.35	7.92	7.49	7.06
	17	TC	9.82	9.38	9.07	8.76	8.24	7.72	7.20
		SC	8.49	8.20	8.00	7.80	7.48	7.17	6.85
	19	TC	10.29	9.82	9.47	9.13	8.54	7.96	7.37
		SC	7.46	7.28	7.17	6.94	6.89	6.72	6.57
	20	TC	10.41	9.98	9.68	9.37	8.82	8.27	7.71
		SC	6.84	6.68	6.57	6.46	6.31	6.16	6.02
	23	TC	10.76	10.49	10.29	10.10	9.65	9.20	8.75
		SC	5.04	4.94	4.87	4.80	4.67	4.54	4.42
	24	TC	10.87	10.65	10.50	10.34	9.93	9.51	9.10
		SC	4.46	4.39	4.33	4.27	4.15	4.02	3.90

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS040CR/M5WSS040AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 1.26 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	11.47	10.98	10.63	10.27	9.71	9.14	8.57
		SC	11.23	10.77	10.45	10.12	9.60	9.08	8.56
	17	TC	11.91	11.38	11.00	10.62	9.99	9.36	8.73
		SC	10.29	9.94	9.70	9.46	9.07	8.69	8.31
	19	TC	12.48	11.90	11.49	11.07	10.36	9.65	8.93
		SC	9.04	8.83	8.69	7.97	8.35	8.15	7.97
	20	TC	12.62	12.11	11.74	11.37	10.70	10.02	9.35
		SC	8.29	8.10	7.96	7.84	7.65	7.47	7.29
	23	TC	13.04	12.71	12.48	12.25	11.70	11.16	10.61
		SC	6.11	5.99	5.91	5.82	5.66	5.51	5.35
	24	TC	13.18	12.92	12.73	12.54	12.04	11.54	11.03
		SC	5.41	5.32	5.25	5.18	5.03	4.88	4.73

Water Flow Rate = 2.10 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	12.00	11.48	11.11	10.74	10.15	9.56	8.97
		SC	11.74	11.26	10.92	10.58	10.04	9.50	8.95
	17	TC	12.45	11.90	11.50	11.10	10.44	9.79	9.13
		SC	10.76	10.40	10.14	9.89	9.49	9.09	8.69
	19	TC	13.05	12.45	12.01	11.58	10.83	10.09	9.34
		SC	9.45	9.24	9.09	8.34	8.73	8.53	8.33
	20	TC	13.20	12.66	12.27	11.89	11.18	10.48	9.78
		SC	8.67	8.47	8.33	8.19	8.00	7.81	7.63
	23	TC	13.64	13.30	13.05	12.81	12.24	11.67	11.10
		SC	6.39	6.27	6.17	6.08	5.92	5.76	5.60
	24	TC	13.78	13.51	13.31	13.11	12.59	12.06	11.54
		SC	5.66	5.56	5.49	5.42	5.26	5.10	4.94

Water Flow Rate = 2.94 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	12.26	11.73	11.35	10.98	10.37	9.77	9.16
		SC	12.00	11.51	11.16	10.81	10.26	9.70	9.15
	17	TC	12.72	12.15	11.75	11.34	10.67	10.00	9.32
		SC	10.99	10.62	10.36	10.11	9.69	9.28	8.88
	19	TC	13.33	12.71	12.27	11.83	11.07	10.31	9.54
		SC	9.66	9.43	9.28	8.52	8.92	8.71	8.51
	20	TC	13.48	12.93	12.54	12.14	11.43	10.71	9.99
		SC	8.85	8.65	8.51	8.37	8.17	7.98	7.79
	23	TC	13.93	13.58	13.33	13.08	12.50	11.92	11.34
		SC	6.53	6.40	6.31	6.22	6.05	5.88	5.72
	24	TC	14.08	13.80	13.60	13.40	12.86	12.32	11.79
		SC	5.78	5.68	5.61	5.54	5.37	5.21	5.05

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS050CR/M5WSS050AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 1.53 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	14.52	13.89	13.44	13.00	12.28	11.56	10.85
		SC	14.21	13.63	13.22	12.80	12.15	11.49	10.83
	17	TC	15.06	14.39	13.91	13.43	12.64	11.84	11.04
		SC	13.02	12.58	12.27	11.97	11.48	10.99	10.51
	19	TC	15.79	15.06	14.53	14.01	13.11	12.20	11.30
		SC	11.44	11.17	10.99	10.23	10.56	10.31	10.08
	20	TC	15.97	15.31	14.85	14.38	13.53	12.68	11.83
		SC	10.49	10.24	10.08	9.91	9.68	9.45	9.23
	23	TC	16.50	16.09	15.79	15.49	14.81	14.12	13.43
		SC	7.74	7.58	7.47	7.36	7.16	6.97	6.77
	24	TC	16.68	16.34	16.10	15.87	15.23	14.59	13.96
		SC	6.85	6.73	6.64	6.56	6.36	6.17	5.98

Water Flow Rate = 2.55 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	15.18	14.53	14.06	13.59	12.84	12.09	11.34
		SC	14.85	14.25	13.82	13.39	12.70	12.01	11.33
	17	TC	15.75	15.05	14.55	14.05	13.21	12.38	11.55
		SC	13.61	13.16	12.83	12.51	12.00	11.50	10.99
	19	TC	16.51	15.75	15.20	14.65	13.71	12.76	11.82
		SC	11.96	11.68	11.49	10.69	11.05	10.79	10.54
	20	TC	16.70	16.01	15.53	15.04	14.15	13.26	12.37
		SC	10.97	10.71	10.54	10.37	10.12	9.88	9.65
	23	TC	17.25	16.82	16.51	16.20	15.48	14.76	14.04
		SC	8.09	7.93	7.81	7.70	7.49	7.28	7.08
	24	TC	17.44	17.09	16.84	16.59	15.93	15.26	14.60
		SC	7.16	7.04	6.95	6.86	6.65	6.45	6.26

Water Flow Rate = 3.57 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	15.51	14.84	14.36	13.88	13.12	12.35	11.59
		SC	15.18	14.56	14.12	13.68	12.97	12.27	11.57
	17	TC	16.09	15.37	14.86	14.35	13.50	12.65	11.80
		SC	13.91	13.44	13.11	12.78	12.26	11.74	11.23
	19	TC	16.87	16.09	15.53	14.97	14.00	13.04	12.07
		SC	12.22	11.94	11.74	10.93	11.28	11.02	10.77
	20	TC	17.06	16.36	15.86	15.36	14.46	13.55	12.64
		SC	11.20	10.94	10.76	10.59	10.34	10.09	9.86
	23	TC	17.63	17.18	16.87	16.55	15.82	15.08	14.34
		SC	8.26	8.10	7.98	7.86	7.65	7.44	7.24
	24	TC	17.81	17.46	17.20	16.95	16.27	15.59	14.91
		SC	7.32	7.19	7.10	7.00	6.80	6.59	6.39

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS060CR/M5WSS060AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 1.90 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	15.63	14.95	14.47	13.99	13.22	12.45	11.68
		SC	15.29	14.67	14.23	13.78	13.07	12.37	11.66
	17	TC	16.21	15.49	14.97	14.46	13.60	12.74	11.89
		SC	14.01	13.54	13.21	12.88	12.36	11.83	11.32
	19	TC	17.00	16.21	15.64	15.08	14.11	13.14	12.17
		SC	12.31	12.03	11.83	11.91	11.37	11.10	10.85
	20	TC	17.19	16.49	15.98	15.48	14.57	13.65	12.74
		SC	11.29	11.03	10.85	10.67	10.42	10.17	9.93
	23	TC	17.76	17.31	17.00	16.68	15.94	15.20	14.45
		SC	8.33	8.16	8.04	7.92	7.71	7.50	7.29
	24	TC	17.95	17.59	17.33	17.08	16.39	15.71	15.03
		SC	7.37	7.24	7.15	7.06	6.85	6.64	6.44

Water Flow Rate = 3.17 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	16.34	15.64	15.13	14.63	13.82	13.02	12.21
		SC	15.99	15.34	14.88	14.41	13.67	12.93	12.19
	17	TC	16.96	16.20	15.66	15.12	14.22	13.33	12.43
		SC	14.65	14.16	13.81	13.47	12.92	12.37	11.83
	19	TC	17.77	16.95	16.36	15.77	14.75	13.74	12.72
		SC	12.87	12.58	12.37	12.46	11.89	11.61	11.34
	20	TC	17.97	17.24	16.71	16.19	15.23	14.28	13.32
		SC	11.80	11.53	11.34	11.16	10.89	10.63	10.39
	23	TC	18.57	18.11	17.77	17.44	16.67	15.89	15.12
		SC	8.71	8.53	8.41	8.29	8.06	7.84	7.63
	24	TC	18.77	18.40	18.13	17.86	17.14	16.43	15.71
		SC	7.71	7.57	7.48	7.38	7.16	6.95	6.73

Water Flow Rate = 4.44 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20		30	35	40	45
27.0	15.5	TC	16.69	15.97	15.46	14.95	14.12	13.30	12.47
		SC	16.34	15.67	15.20	14.72	13.97	13.21	12.46
	17	TC	17.32	16.55	16.00	15.45	14.53	13.61	12.70
		SC	14.97	14.47	14.11	13.76	13.20	12.64	12.09
	19	TC	18.16	17.32	16.71	16.11	15.07	14.03	13.00
		SC	13.15	12.85	12.64	12.73	12.15	11.86	11.59
	20	TC	18.36	17.61	17.07	16.54	15.56	14.58	13.61
		SC	12.06	11.78	11.59	11.40	11.13	10.86	10.61
	23	TC	18.97	18.50	18.16	17.82	17.03	16.23	15.44
		SC	8.90	8.72	8.59	8.46	8.23	8.01	7.79
	24	TC	19.18	18.79	18.52	18.24	17.51	16.78	16.05
		SC	7.88	7.74	7.64	7.54	7.32	7.10	6.88

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS040CR/M5WST040AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 1.38 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	10.74	10.28	9.95	9.62	9.09	8.56	8.03
		SC	10.51	10.08	9.78	9.47	8.99	8.50	8.02
	17	TC	11.15	10.65	10.29	9.94	9.35	8.76	8.17
		SC	9.63	9.31	9.08	8.86	8.49	8.13	7.78
	19	TC	11.68	11.14	10.75	10.37	9.70	9.03	8.36
		SC	8.46	8.27	8.13	7.26	7.82	7.63	7.46
	20	TC	11.82	11.33	10.99	10.64	10.01	9.38	8.76
		SC	7.76	7.58	7.46	7.33	7.16	6.99	6.83
	23	TC	12.21	11.90	11.68	11.46	10.96	10.45	9.94
		SC	5.72	5.61	5.53	5.45	5.30	5.15	5.01
	24	TC	12.34	12.09	11.92	11.74	11.27	10.80	10.33
		SC	5.07	4.98	4.92	4.85	4.71	4.57	4.43

Water Flow Rate = 2.30 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	11.23	10.75	10.40	10.06	9.50	8.95	8.39
		SC	10.99	10.54	10.23	9.91	9.40	8.89	8.38
	17	TC	11.65	11.14	10.76	10.39	9.78	9.16	8.54
		SC	10.07	9.73	9.50	9.26	8.88	8.51	8.13
	19	TC	12.22	11.65	11.25	10.84	10.14	9.44	8.74
		SC	8.85	8.65	8.50	7.59	8.17	7.98	7.80
	20	TC	12.35	11.85	11.49	11.13	10.47	9.81	9.16
		SC	8.11	7.93	7.80	7.67	7.49	7.31	7.14
	23	TC	12.77	12.45	12.22	11.99	11.46	10.92	10.39
		SC	5.99	5.87	5.78	5.70	5.54	5.39	5.24
	24	TC	12.90	12.64	12.46	12.28	11.78	11.29	10.80
		SC	5.30	5.21	5.14	5.07	4.92	4.77	4.63

Water Flow Rate = 3.22 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	11.47	10.98	10.63	10.27	9.71	9.14	8.57
		SC	11.23	10.77	10.45	10.12	9.60	9.08	8.56
	17	TC	11.91	11.38	11.00	10.62	9.99	9.36	8.73
		SC	10.29	9.94	9.70	9.46	9.07	8.69	8.31
	19	TC	12.48	11.90	11.49	11.07	10.36	9.65	8.93
		SC	9.04	8.83	8.69	7.75	8.35	8.15	7.97
	20	TC	12.62	12.11	11.74	11.37	10.70	10.02	9.35
		SC	8.29	8.10	7.96	7.84	7.65	7.47	7.29
	23	TC	13.04	12.71	12.48	12.25	11.70	11.16	10.61
		SC	6.11	5.99	5.91	5.82	5.66	5.51	5.35
	24	TC	13.18	12.92	12.73	12.54	12.04	11.54	11.03
		SC	5.41	5.32	5.25	5.18	5.03	4.88	4.73

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS050CR/M5WST050AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 1.74 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	13.36	12.78	12.37	11.96	11.30	10.64	9.98
		SC	13.07	12.54	12.16	11.78	11.18	10.57	9.97
	17	TC	13.86	13.24	12.80	12.36	11.63	10.89	10.16
		SC	11.98	11.58	11.29	11.01	10.56	10.11	9.67
	19	TC	14.53	13.85	13.37	12.89	12.06	11.23	10.40
		SC	10.52	10.28	10.11	10.44	9.72	9.49	9.27
	20	TC	14.69	14.09	13.66	13.23	12.45	11.67	10.89
		SC	9.65	9.43	9.27	9.12	8.90	8.69	8.49
	23	TC	15.18	14.80	14.53	14.26	13.62	12.99	12.36
		SC	7.12	6.98	6.87	6.77	6.59	6.41	6.23
	24	TC	15.34	15.04	14.82	14.60	14.01	13.43	12.84
		SC	6.30	6.19	6.11	6.03	5.85	5.68	5.50

Water Flow Rate = 2.90 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	13.97	13.37	12.94	12.51	11.82	11.13	10.44
		SC	13.67	13.11	12.72	12.32	11.69	11.05	10.42
	17	TC	14.49	13.85	13.39	12.92	12.16	11.39	10.62
		SC	12.52	12.10	11.81	11.52	11.04	10.58	10.12
	19	TC	15.19	14.49	13.98	13.48	12.61	11.74	10.87
		SC	11.00	10.75	10.58	10.92	10.16	9.92	9.70
	20	TC	15.36	14.74	14.29	13.84	13.02	12.20	11.39
		SC	10.09	9.86	9.69	9.54	9.31	9.09	8.88
	23	TC	15.87	15.48	15.19	14.91	14.25	13.58	12.92
		SC	7.44	7.29	7.19	7.08	6.89	6.70	6.52
	24	TC	16.05	15.72	15.49	15.27	14.65	14.04	13.43
		SC	6.59	6.47	6.39	6.31	6.12	5.94	5.76

Water Flow Rate = 4.06 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	14.27	13.65	13.22	12.78	12.07	11.37	10.66
		SC	13.96	13.40	12.99	12.59	11.94	11.29	10.65
	17	TC	14.81	14.15	13.67	13.20	12.42	11.64	10.85
		SC	12.79	12.37	12.06	11.76	11.28	10.81	10.33
	19	TC	15.52	14.80	14.29	13.77	12.88	12.00	11.11
		SC	11.24	10.98	10.80	11.15	10.38	10.14	9.91
	20	TC	15.70	15.05	14.59	14.14	13.30	12.47	11.63
		SC	10.31	10.07	9.90	9.74	9.51	9.29	9.07
	23	TC	16.22	15.81	15.52	15.23	14.55	13.88	13.20
		SC	7.60	7.45	7.34	7.24	7.04	6.85	6.66
	24	TC	16.39	16.06	15.83	15.59	14.97	14.35	13.72
		SC	6.73	6.61	6.53	6.45	6.25	6.07	5.88

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS060CR/M5WST060AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 2.07 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	15.39	14.73	14.25	13.78	13.02	12.26	11.50
		SC	15.06	14.45	14.01	13.57	12.88	12.18	11.48
	17	TC	15.97	15.26	14.75	14.24	13.39	12.55	11.71
		SC	13.80	13.34	13.01	12.69	12.17	11.65	11.14
	19	TC	16.74	15.96	15.41	14.85	13.89	12.94	11.98
		SC	12.12	11.84	11.65	11.88	11.20	10.93	10.68
	20	TC	16.93	16.23	15.74	15.24	14.34	13.44	12.54
		SC	11.12	10.86	10.68	10.51	10.26	10.01	9.78
	23	TC	17.49	17.05	16.74	16.42	15.69	14.96	14.23
		SC	8.20	8.04	7.92	7.80	7.59	7.38	7.18
	24	TC	17.68	17.32	17.07	16.82	16.15	15.47	14.80
		SC	7.26	7.13	7.04	6.95	6.74	6.54	6.34

Water Flow Rate = 3.45 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	16.09	15.40	14.90	14.41	13.61	12.82	12.03
		SC	15.75	15.11	14.65	14.19	13.46	12.74	12.01
	17	TC	16.70	15.95	15.42	14.89	14.01	13.12	12.24
		SC	14.43	13.95	13.60	13.27	12.72	12.19	11.65
	19	TC	17.50	16.69	16.11	15.53	14.53	13.53	12.53
		SC	12.68	12.39	12.18	12.42	11.71	11.43	11.17
	20	TC	17.70	16.98	16.46	15.94	15.00	14.06	13.12
		SC	11.62	11.36	11.17	10.99	10.73	10.47	10.23
	23	TC	18.29	17.83	17.50	17.18	16.41	15.65	14.89
		SC	8.57	8.40	8.28	8.16	7.94	7.72	7.51
	24	TC	18.49	18.12	17.85	17.59	16.88	16.18	15.47
		SC	7.59	7.46	7.36	7.27	7.05	6.84	6.63

Water Flow Rate = 4.83 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	16.44	15.73	15.23	14.72	13.91	13.10	12.28
		SC	16.09	15.43	14.97	14.50	13.75	13.01	12.27
	17	TC	17.06	16.30	15.75	15.21	14.31	13.41	12.50
		SC	14.74	14.25	13.90	13.55	13.00	12.45	11.91
	19	TC	17.88	17.05	16.46	15.87	14.84	13.82	12.80
		SC	12.95	12.65	12.45	12.69	11.96	11.68	11.41
	20	TC	18.08	17.34	16.81	16.29	15.32	14.36	13.40
		SC	11.88	11.60	11.41	11.23	10.96	10.70	10.45
	23	TC	18.68	18.22	17.88	17.55	16.77	15.99	15.21
		SC	8.76	8.58	8.46	8.34	8.11	7.89	7.67
	24	TC	18.88	18.51	18.24	17.97	17.25	16.53	15.81
		SC	7.76	7.62	7.52	7.43	7.21	6.99	6.77

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS020AR/M5WSS016AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.57 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	4.65	4.45	4.30	4.16	3.93	3.70	3.47
		SC	4.55	4.36	4.23	4.10	3.89	3.68	3.47
	17	TC	4.82	4.61	4.45	4.30	4.04	3.79	3.54
		SC	4.17	4.03	3.93	3.83	3.67	3.52	3.37
	19	TC	5.06	4.82	4.65	4.49	4.20	3.91	3.62
		SC	3.66	3.58	3.52	3.54	3.38	3.30	3.23
	20	TC	5.11	4.90	4.75	4.60	4.33	4.06	3.79
		SC	3.36	3.28	3.23	3.17	3.10	3.02	2.95
	23	TC	5.28	5.15	5.05	4.96	4.74	4.52	4.30
		SC	2.48	2.43	2.39	2.36	2.29	2.23	2.17
	24	TC	5.34	5.23	5.16	5.08	4.88	4.67	4.47
		SC	2.19	2.15	2.13	2.10	2.04	1.98	1.92

Water Flow Rate = 0.95 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	4.86	4.65	4.50	4.35	4.11	3.87	3.63
		SC	4.76	4.56	4.42	4.29	4.07	3.85	3.63
	17	TC	5.04	4.82	4.66	4.50	4.23	3.96	3.70
		SC	4.36	4.21	4.11	4.01	3.84	3.68	3.52
	19	TC	5.29	5.04	4.87	4.69	4.39	4.09	3.78
		SC	3.83	3.74	3.68	3.71	3.54	3.45	3.37
	20	TC	5.35	5.13	4.97	4.81	4.53	4.25	3.96
		SC	3.51	3.43	3.37	3.32	3.24	3.16	3.09
	23	TC	5.52	5.38	5.29	5.19	4.96	4.73	4.50
		SC	2.59	2.54	2.50	2.46	2.40	2.33	2.27
	24	TC	5.58	5.47	5.39	5.31	5.10	4.89	4.67
		SC	2.29	2.25	2.22	2.20	2.13	2.07	2.00

Water Flow Rate = 1.33 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	4.96	4.75	4.60	4.45	4.20	3.96	3.71
		SC	4.86	4.66	4.52	4.38	4.15	3.93	3.70
	17	TC	5.15	4.92	4.76	4.59	4.32	4.05	3.78
		SC	4.45	4.30	4.20	4.09	3.93	3.76	3.60
	19	TC	5.40	5.15	4.97	4.79	4.48	4.17	3.87
		SC	3.91	3.82	3.76	3.79	3.61	3.53	3.45
	20	TC	5.46	5.24	5.08	4.92	4.63	4.34	4.05
		SC	3.59	3.50	3.45	3.39	3.31	3.23	3.16
	23	TC	5.64	5.50	5.40	5.30	5.06	4.83	4.59
		SC	2.65	2.59	2.55	2.52	2.45	2.38	2.32
	24	TC	5.70	5.59	5.51	5.43	5.21	4.99	4.77
		SC	2.34	2.30	2.27	2.24	2.18	2.11	2.05

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS020AR/M5WSS020AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	5.81	5.56	5.38	5.20	4.91	4.63	4.34
		SC	5.68	5.45	5.29	5.12	4.86	4.60	4.33
	17	TC	6.03	5.76	5.56	5.37	5.05	4.74	4.42
		SC	5.21	5.03	4.91	4.79	4.59	4.40	4.21
	19	TC	6.32	6.02	5.81	5.60	5.24	4.88	4.52
		SC	4.57	4.47	4.40	4.43	4.22	4.13	4.03
	20	TC	6.39	6.13	5.94	5.75	5.41	5.07	4.73
		SC	4.19	4.10	4.03	3.96	3.87	3.78	3.69
	23	TC	6.60	6.43	6.32	6.20	5.92	5.65	5.37
		SC	3.09	3.03	2.99	2.94	2.86	2.79	2.71
	24	TC	6.67	6.54	6.44	6.35	6.09	5.84	5.58
		SC	2.74	2.69	2.66	2.62	2.55	2.47	2.39

Water Flow Rate = 1.25 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	6.07	5.81	5.62	5.44	5.14	4.84	4.54
		SC	5.94	5.70	5.53	5.36	5.08	4.81	4.53
	17	TC	6.30	6.02	5.82	5.62	5.28	4.95	4.62
		SC	5.44	5.26	5.13	5.01	4.80	4.60	4.40
	19	TC	6.60	6.30	6.08	5.86	5.48	5.10	4.73
		SC	4.78	4.67	4.60	4.63	4.42	4.31	4.22
	20	TC	6.68	6.41	6.21	6.02	5.66	5.30	4.95
		SC	4.39	4.28	4.21	4.15	4.05	3.95	3.86
	23	TC	6.90	6.73	6.60	6.48	6.19	5.90	5.62
		SC	3.24	3.17	3.12	3.08	3.00	2.91	2.83
	24	TC	6.98	6.84	6.74	6.64	6.37	6.10	5.84
		SC	2.86	2.81	2.78	2.74	2.66	2.58	2.50

Water Flow Rate = 1.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	6.20	5.94	5.74	5.55	5.25	4.94	4.64
		SC	6.07	5.82	5.65	5.47	5.19	4.91	4.63
	17	TC	6.44	6.15	5.94	5.74	5.40	5.06	4.72
		SC	5.56	5.38	5.24	5.11	4.90	4.70	4.49
	19	TC	6.75	6.43	6.21	5.99	5.60	5.21	4.83
		SC	4.89	4.77	4.70	4.73	4.51	4.41	4.31
	20	TC	6.82	6.54	6.34	6.15	5.78	5.42	5.06
		SC	4.48	4.38	4.31	4.24	4.13	4.04	3.94
	23	TC	7.05	6.87	6.75	6.62	6.33	6.03	5.74
		SC	3.31	3.24	3.19	3.15	3.06	2.98	2.89
	24	TC	7.13	6.98	6.88	6.78	6.51	6.24	5.97
		SC	2.93	2.88	2.84	2.80	2.72	2.64	2.56

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS025AR/M5WSS025AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.84 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	7.26	6.95	6.73	6.50	6.14	5.79	5.43
		SC	7.11	6.82	6.61	6.41	6.08	5.75	5.42
	17	TC	7.54	7.20	6.96	6.72	6.32	5.92	5.53
		SC	6.51	6.29	6.14	5.99	5.74	5.50	5.26
	19	TC	7.90	7.53	7.27	7.01	6.56	6.11	5.65
		SC	5.72	5.59	5.50	5.82	5.28	5.16	5.04
	20	TC	7.99	7.66	7.43	7.20	6.77	6.35	5.92
		SC	5.25	5.13	5.04	4.96	4.84	4.73	4.62
	23	TC	8.26	8.05	7.90	7.75	7.41	7.06	6.72
		SC	3.87	3.79	3.74	3.68	3.58	3.48	3.39
	24	TC	8.34	8.18	8.06	7.94	7.62	7.30	6.98
		SC	3.43	3.37	3.32	3.28	3.18	3.09	2.99

Water Flow Rate = 1.40 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	7.60	7.27	7.03	6.80	6.43	6.05	5.68
		SC	7.43	7.13	6.91	6.70	6.35	6.01	5.67
	17	TC	7.88	7.53	7.28	7.03	6.61	6.19	5.78
		SC	6.81	6.58	6.42	6.26	6.01	5.75	5.50
	19	TC	8.26	7.88	7.60	7.33	6.86	6.39	5.91
		SC	5.98	5.85	5.75	6.08	5.53	5.40	5.27
	20	TC	8.35	8.01	7.77	7.52	7.08	6.64	6.19
		SC	5.49	5.36	5.27	5.19	5.06	4.94	4.83
	23	TC	8.63	8.42	8.26	8.11	7.75	7.39	7.03
		SC	4.05	3.97	3.91	3.85	3.75	3.64	3.54
	24	TC	8.72	8.55	8.43	8.30	7.97	7.64	7.30
		SC	3.58	3.52	3.48	3.43	3.33	3.23	3.13

Water Flow Rate = 1.96 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	7.76	7.42	7.19	6.95	6.56	6.18	5.80
		SC	7.59	7.28	7.06	6.84	6.49	6.14	5.79
	17	TC	8.05	7.69	7.44	7.18	6.75	6.33	5.90
		SC	6.96	6.72	6.56	6.40	6.13	5.88	5.62
	19	TC	8.44	8.05	7.77	7.49	7.01	6.52	6.04
		SC	6.11	5.97	5.88	6.22	5.65	5.51	5.39
	20	TC	8.53	8.19	7.94	7.69	7.23	6.78	6.32
		SC	5.61	5.48	5.39	5.30	5.17	5.05	4.93
	23	TC	8.82	8.60	8.44	8.28	7.91	7.55	7.18
		SC	4.13	4.05	3.99	3.93	3.83	3.72	3.62
	24	TC	8.91	8.73	8.61	8.48	8.14	7.80	7.46
		SC	3.66	3.60	3.55	3.50	3.40	3.30	3.20

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS030AR/M5WSS030AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 1.08 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	8.71	8.33	8.07	7.80	7.37	6.94	6.51
		SC	8.52	8.18	7.93	7.68	7.29	6.89	6.50
	17	TC	9.04	8.63	8.35	8.06	7.58	7.10	6.63
		SC	7.81	7.55	7.36	7.18	6.89	6.60	6.31
	19	TC	9.47	9.03	8.72	8.41	7.86	7.32	6.78
		SC	6.86	6.70	6.60	6.22	6.34	6.19	6.05
	20	TC	9.58	9.19	8.91	8.63	8.12	7.61	7.10
		SC	6.29	6.15	6.05	5.95	5.81	5.67	5.54
	23	TC	9.90	9.65	9.47	9.30	8.88	8.47	8.06
		SC	4.64	4.55	4.48	4.42	4.30	4.18	4.06
	24	TC	10.01	9.81	9.66	9.52	9.14	8.76	8.38
		SC	4.11	4.04	3.99	3.93	3.82	3.70	3.59

Water Flow Rate = 1.80 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	9.11	8.72	8.44	8.15	7.71	7.26	6.81
		SC	8.91	8.55	8.29	8.03	7.62	7.21	6.80
	17	TC	9.45	9.03	8.73	8.43	7.93	7.43	6.93
		SC	8.17	7.89	7.70	7.51	7.20	6.90	6.60
	19	TC	9.91	9.45	9.12	8.79	8.22	7.66	7.09
		SC	7.18	7.01	6.90	6.50	6.63	6.47	6.32
	20	TC	10.02	9.61	9.32	9.02	8.49	7.96	7.42
		SC	6.58	6.43	6.32	6.22	6.07	5.93	5.79
	23	TC	10.35	10.09	9.91	9.72	9.29	8.86	8.43
		SC	4.85	4.76	4.69	4.62	4.49	4.37	4.25
	24	TC	10.46	10.25	10.10	9.95	9.56	9.16	8.76
		SC	4.30	4.22	4.17	4.11	3.99	3.87	3.75

Water Flow Rate = 2.52 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	9.30	8.90	8.62	8.33	7.87	7.41	6.95
		SC	9.11	8.73	8.47	8.21	7.78	7.36	6.94
	17	TC	9.65	9.22	8.92	8.61	8.10	7.59	7.08
		SC	8.34	8.06	7.87	7.67	7.36	7.05	6.74
	19	TC	10.12	9.65	9.32	8.98	8.40	7.82	7.24
		SC	7.33	7.16	7.05	6.64	6.77	6.61	6.46
	20	TC	10.23	9.82	9.52	9.22	8.67	8.13	7.58
		SC	6.72	6.57	6.46	6.35	6.20	6.05	5.91
	23	TC	10.58	10.31	10.12	9.93	9.49	9.05	8.61
		SC	4.96	4.86	4.79	4.72	4.59	4.46	4.34
	24	TC	10.69	10.47	10.32	10.17	9.76	9.35	8.95
		SC	4.39	4.31	4.26	4.20	4.08	3.96	3.83

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS040AR/M5WSS040AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 1.26 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	11.18	10.70	10.35	10.01	9.46	8.90	8.35
		SC	10.94	10.49	10.18	9.86	9.35	8.85	8.34
	17	TC	11.60	11.08	10.71	10.34	9.73	9.12	8.50
		SC	10.02	9.69	9.45	9.21	8.84	8.46	8.09
	19	TC	12.16	11.59	11.19	10.79	10.09	9.40	8.70
		SC	8.81	8.60	8.46	8.09	8.13	7.94	7.76
	20	TC	12.29	11.79	11.43	11.07	10.42	9.77	9.11
		SC	8.07	7.89	7.76	7.63	7.45	7.27	7.10
	23	TC	12.70	12.39	12.16	11.93	11.40	10.87	10.34
		SC	5.96	5.84	5.75	5.67	5.51	5.36	5.22
	24	TC	12.84	12.58	12.40	12.22	11.73	11.24	10.75
		SC	5.27	5.18	5.11	5.05	4.90	4.75	4.61

Water Flow Rate = 2.10 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	11.69	11.18	10.82	10.47	9.89	9.31	8.73
		SC	11.44	10.97	10.64	10.31	9.78	9.25	8.72
	17	TC	12.13	11.59	11.20	10.81	10.17	9.53	8.89
		SC	10.48	10.13	9.88	9.64	9.24	8.85	8.46
	19	TC	12.71	12.12	11.70	11.28	10.55	9.83	9.10
		SC	9.21	9.00	8.85	8.46	8.50	8.30	8.11
	20	TC	12.86	12.33	11.95	11.58	10.90	10.21	9.53
		SC	8.44	8.25	8.11	7.98	7.79	7.61	7.43
	23	TC	13.28	12.95	12.71	12.48	11.92	11.37	10.81
		SC	6.23	6.10	6.01	5.93	5.77	5.61	5.45
	24	TC	13.43	13.16	12.97	12.77	12.26	11.75	11.24
		SC	5.51	5.42	5.35	5.28	5.12	4.97	4.82

Water Flow Rate = 2.94 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	11.94	11.43	11.06	10.69	10.10	9.51	8.92
		SC	11.68	11.21	10.87	10.53	9.99	9.45	8.91
	17	TC	12.39	11.84	11.44	11.05	10.39	9.74	9.08
		SC	10.71	10.35	10.09	9.84	9.44	9.04	8.65
	19	TC	12.99	12.39	11.95	11.52	10.78	10.04	9.30
		SC	9.41	9.19	9.04	8.64	8.69	8.48	8.29
	20	TC	13.13	12.60	12.21	11.83	11.13	10.43	9.73
		SC	8.63	8.43	8.29	8.15	7.96	7.77	7.59
	23	TC	13.57	13.23	12.99	12.74	12.18	11.61	11.05
		SC	6.36	6.24	6.14	6.05	5.89	5.73	5.57
	24	TC	13.72	13.44	13.25	13.05	12.53	12.00	11.48
		SC	5.63	5.53	5.46	5.39	5.23	5.08	4.92

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS050AR/M5WSS050AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 1.53 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	14.95	14.31	13.85	13.39	12.65	11.91	11.17
		SC	14.63	14.04	13.61	13.19	12.51	11.83	11.16
	17	TC	15.52	14.82	14.33	13.83	13.01	12.19	11.37
		SC	13.41	12.96	12.64	12.33	11.82	11.32	10.83
	19	TC	16.27	15.51	14.97	14.43	13.50	12.57	11.64
		SC	11.78	11.51	11.32	10.25	10.88	10.62	10.38
	20	TC	16.45	15.77	15.29	14.81	13.94	13.06	12.19
		SC	10.80	10.55	10.38	10.21	9.97	9.73	9.50
	23	TC	16.99	16.57	16.26	15.96	15.25	14.54	13.83
		SC	7.97	7.81	7.69	7.58	7.38	7.17	6.98
	24	TC	17.18	16.83	16.59	16.34	15.69	15.03	14.38
		SC	7.05	6.93	6.84	6.75	6.55	6.36	6.16

Water Flow Rate = 2.55 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	15.64	14.96	14.48	14.00	13.23	12.46	11.68
		SC	15.30	14.68	14.23	13.79	13.08	12.37	11.67
	17	TC	16.22	15.50	14.98	14.47	13.61	12.75	11.89
		SC	14.02	13.55	13.22	12.89	12.36	11.84	11.32
	19	TC	17.01	16.22	15.65	15.09	14.12	13.15	12.17
		SC	12.32	12.03	11.84	10.71	11.38	11.11	10.85
	20	TC	17.20	16.50	15.99	15.49	14.57	13.66	12.75
		SC	11.30	11.03	10.85	10.68	10.42	10.17	9.94
	23	TC	17.77	17.33	17.01	16.69	15.95	15.21	14.46
		SC	8.33	8.16	8.05	7.93	7.71	7.50	7.30
	24	TC	17.96	17.60	17.35	17.09	16.40	15.72	15.04
		SC	7.38	7.25	7.15	7.06	6.85	6.65	6.44

Water Flow Rate = 3.57 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	15.97	15.29	14.79	14.30	13.51	12.73	11.94
		SC	15.63	15.00	14.54	14.09	13.36	12.64	11.92
	17	TC	16.57	15.84	15.31	14.78	13.90	13.03	12.15
		SC	14.32	13.84	13.50	13.17	12.63	12.10	11.57
	19	TC	17.38	16.57	15.99	15.42	14.42	13.43	12.44
		SC	12.59	12.29	12.09	10.95	11.62	11.35	11.09
	20	TC	17.57	16.85	16.34	15.82	14.89	13.96	13.02
		SC	11.54	11.27	11.09	10.91	10.65	10.39	10.15
	23	TC	18.15	17.70	17.37	17.05	16.29	15.53	14.78
		SC	8.51	8.34	8.22	8.10	7.88	7.66	7.45
	24	TC	18.35	17.98	17.72	17.46	16.76	16.06	15.36
		SC	7.54	7.40	7.31	7.21	7.00	6.79	6.58

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS010CR/M5WSS007AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.27 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.32	2.22	2.15	2.08	1.96	1.85	1.73
		SC	2.27	2.18	2.11	2.05	1.94	1.84	1.73
	17	TC	2.41	2.30	2.22	2.15	2.02	1.89	1.76
		SC	2.08	2.01	1.96	1.91	1.83	1.76	1.68
	19	TC	2.52	2.41	2.32	2.24	2.09	1.95	1.81
		SC	1.83	1.78	1.76	1.95	1.69	1.65	1.61
	20	TC	2.55	2.45	2.37	2.30	2.16	2.03	1.89
		SC	1.68	1.64	1.61	1.58	1.55	1.51	1.47
	23	TC	2.64	2.57	2.52	2.47	2.36	2.25	2.14
		SC	1.24	1.21	1.19	1.18	1.14	1.11	1.08
	24	TC	2.66	2.61	2.57	2.53	2.43	2.33	2.23
		SC	1.09	1.07	1.06	1.05	1.02	0.99	0.96

Water Flow Rate = 0.45 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.42	2.32	2.25	2.17	2.05	1.93	1.81
		SC	2.37	2.28	2.21	2.14	2.03	1.92	1.81
	17	TC	2.52	2.40	2.32	2.24	2.11	1.98	1.84
		SC	2.17	2.10	2.05	2.00	1.92	1.84	1.76
	19	TC	2.64	2.51	2.43	2.34	2.19	2.04	1.89
		SC	1.91	1.87	1.84	2.04	1.76	1.72	1.68
	20	TC	2.67	2.56	2.48	2.40	2.26	2.12	1.98
		SC	1.75	1.71	1.68	1.66	1.62	1.58	1.54
	23	TC	2.76	2.69	2.64	2.59	2.47	2.36	2.24
		SC	1.29	1.27	1.25	1.23	1.20	1.16	1.13
	24	TC	2.79	2.73	2.69	2.65	2.54	2.44	2.33
		SC	1.14	1.12	1.11	1.10	1.06	1.03	1.00

Water Flow Rate = 0.63 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.48	2.37	2.29	2.22	2.10	1.97	1.85
		SC	2.42	2.33	2.25	2.18	2.07	1.96	1.85
	17	TC	2.57	2.46	2.37	2.29	2.16	2.02	1.88
		SC	2.22	2.15	2.09	2.04	1.96	1.88	1.79
	19	TC	2.69	2.57	2.48	2.39	2.24	2.08	1.93
		SC	1.95	1.91	1.88	2.08	1.80	1.76	1.72
	20	TC	2.72	2.61	2.53	2.45	2.31	2.16	2.02
		SC	1.79	1.75	1.72	1.69	1.65	1.61	1.57
	23	TC	2.82	2.74	2.69	2.64	2.53	2.41	2.29
		SC	1.32	1.29	1.27	1.26	1.22	1.19	1.16
	24	TC	2.85	2.79	2.75	2.71	2.60	2.49	2.38
		SC	1.17	1.15	1.13	1.12	1.09	1.05	1.02

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS010CR/M5WSS010AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.31m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.90	2.78	2.69	2.60	2.46	2.31	2.17
		SC	2.84	2.73	2.64	2.56	2.43	2.30	2.17
	17	TC	3.01	2.88	2.78	2.69	2.53	2.37	2.21
		SC	2.60	2.52	2.45	2.39	2.30	2.20	2.10
	19	TC	3.16	3.01	2.91	2.80	2.62	2.44	2.26
		SC	2.29	2.23	2.20	2.27	2.11	2.06	2.02
	20	TC	3.19	3.06	2.97	2.88	2.71	2.54	2.37
		SC	2.10	2.05	2.02	1.98	1.94	1.89	1.85
	23	TC	3.30	3.22	3.16	3.10	2.96	2.82	2.69
		SC	1.55	1.52	1.49	1.47	1.43	1.39	1.35
	24	TC	3.34	3.27	3.22	3.17	3.05	2.92	2.79
		SC	1.37	1.35	1.33	1.31	1.27	1.23	1.20

Water Flow Rate = 0.51 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.04	2.91	2.81	2.72	2.57	2.42	2.27
		SC	2.97	2.85	2.76	2.68	2.54	2.40	2.27
	17	TC	3.15	3.01	2.91	2.81	2.64	2.48	2.31
		SC	2.72	2.63	2.57	2.50	2.40	2.30	2.20
	19	TC	3.30	3.15	3.04	2.93	2.74	2.55	2.36
		SC	2.39	2.34	2.30	2.37	2.21	2.16	2.11
	20	TC	3.34	3.20	3.11	3.01	2.83	2.65	2.47
		SC	2.19	2.14	2.11	2.07	2.02	1.98	1.93
	23	TC	3.45	3.36	3.30	3.24	3.10	2.95	2.81
		SC	1.62	1.59	1.56	1.54	1.50	1.46	1.42
	24	TC	3.49	3.42	3.37	3.32	3.19	3.05	2.92
		SC	1.43	1.41	1.39	1.37	1.33	1.29	1.25

Water Flow Rate = 0.71 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.10	2.97	2.87	2.78	2.62	2.47	2.32
		SC	3.04	2.91	2.82	2.74	2.59	2.45	2.31
	17	TC	3.22	3.07	2.97	2.87	2.70	2.53	2.36
		SC	2.78	2.69	2.62	2.56	2.45	2.35	2.25
	19	TC	3.37	3.22	3.11	2.99	2.80	2.61	2.41
		SC	2.44	2.39	2.35	2.42	2.26	2.20	2.15
	20	TC	3.41	3.27	3.17	3.07	2.89	2.71	2.53
		SC	2.24	2.19	2.15	2.12	2.07	2.02	1.97
	23	TC	3.53	3.44	3.37	3.31	3.16	3.02	2.87
		SC	1.65	1.62	1.60	1.57	1.53	1.49	1.45
	24	TC	3.56	3.49	3.44	3.39	3.25	3.12	2.98
		SC	1.46	1.44	1.42	1.40	1.36	1.32	1.28

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS015CR/M5WSS015AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.45 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.63	3.47	3.36	3.25	3.07	2.89	2.71
		SC	3.55	3.40	3.30	3.20	3.03	2.87	2.71
	17	TC	3.76	3.60	3.48	3.36	3.16	2.96	2.76
		SC	3.25	3.14	3.07	2.99	2.87	2.75	2.63
	19	TC	3.94	3.76	3.63	3.50	3.27	3.05	2.82
		SC	2.86	2.79	2.75	3.01	2.64	2.58	2.52
	20	TC	3.99	3.83	3.71	3.59	3.38	3.17	2.96
		SC	2.62	2.56	2.52	2.48	2.42	2.36	2.31
	23	TC	4.12	4.02	3.94	3.87	3.70	3.53	3.35
		SC	1.93	1.89	1.87	1.84	1.79	1.74	1.69
	24	TC	4.17	4.08	4.02	3.96	3.80	3.65	3.49
		SC	1.71	1.68	1.66	1.64	1.59	1.54	1.49

Water Flow Rate = 0.75 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.79	3.63	3.51	3.40	3.21	3.02	2.83
		SC	3.71	3.56	3.45	3.34	3.17	3.00	2.83
	17	TC	3.94	3.76	3.63	3.51	3.30	3.09	2.88
		SC	3.40	3.29	3.21	3.13	3.00	2.87	2.75
	19	TC	4.13	3.93	3.80	3.66	3.42	3.19	2.95
		SC	2.99	2.92	2.87	3.15	2.76	2.69	2.63
	20	TC	4.17	4.00	3.88	3.76	3.54	3.31	3.09
		SC	2.74	2.68	2.63	2.59	2.53	2.47	2.41
	23	TC	4.31	4.20	4.12	4.05	3.87	3.69	3.51
		SC	2.02	1.98	1.95	1.92	1.87	1.82	1.77
	24	TC	4.36	4.27	4.21	4.14	3.98	3.81	3.65
		SC	1.79	1.76	1.74	1.71	1.66	1.61	1.56

Water Flow Rate = 1.05 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.87	3.71	3.59	3.47	3.28	3.09	2.90
		SC	3.79	3.64	3.53	3.42	3.24	3.07	2.89
	17	TC	4.02	3.84	3.71	3.58	3.37	3.16	2.95
		SC	3.47	3.36	3.28	3.19	3.06	2.93	2.81
	19	TC	4.21	4.02	3.88	3.74	3.50	3.26	3.02
		SC	3.05	2.98	2.93	3.22	2.82	2.75	2.69
	20	TC	4.26	4.09	3.96	3.84	3.61	3.38	3.16
		SC	2.80	2.73	2.69	2.65	2.58	2.52	2.46
	23	TC	4.40	4.29	4.21	4.14	3.95	3.77	3.58
		SC	2.06	2.02	1.99	1.96	1.91	1.86	1.81
	24	TC	4.45	4.36	4.30	4.23	4.06	3.90	3.73
		SC	1.83	1.80	1.77	1.75	1.70	1.65	1.60

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS020CR/M5WSS016AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.57 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	4.80	4.59	4.44	4.29	4.06	3.82	3.58
		SC	4.69	4.50	4.37	4.23	4.01	3.80	3.58
	17	TC	4.98	4.75	4.60	4.44	4.17	3.91	3.65
		SC	4.30	4.16	4.05	3.95	3.79	3.63	3.47
	19	TC	5.22	4.97	4.80	4.63	4.33	4.03	3.73
		SC	3.78	3.69	3.63	3.33	3.49	3.41	3.33
	20	TC	5.28	5.06	4.91	4.75	4.47	4.19	3.91
		SC	3.46	3.38	3.33	3.27	3.20	3.12	3.05
	23	TC	5.45	5.31	5.22	5.12	4.89	4.66	4.44
		SC	2.56	2.50	2.47	2.43	2.37	2.30	2.24
	24	TC	5.51	5.40	5.32	5.24	5.03	4.82	4.61
		SC	2.26	2.22	2.19	2.17	2.10	2.04	1.98

Water Flow Rate = 0.95 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	5.02	4.80	4.64	4.49	4.24	4.00	3.75
		SC	4.91	4.71	4.57	4.42	4.20	3.97	3.74
	17	TC	5.20	4.97	4.81	4.64	4.37	4.09	3.81
		SC	4.50	4.35	4.24	4.13	3.97	3.80	3.63
	19	TC	5.46	5.20	5.02	4.84	4.53	4.22	3.90
		SC	3.95	3.86	3.80	3.48	3.65	3.56	3.48
	20	TC	5.52	5.29	5.13	4.97	4.67	4.38	4.09
		SC	3.62	3.54	3.48	3.42	3.34	3.26	3.19
	23	TC	5.70	5.56	5.45	5.35	5.11	4.88	4.64
		SC	2.67	2.62	2.58	2.54	2.47	2.41	2.34
	24	TC	5.76	5.65	5.56	5.48	5.26	5.04	4.82
		SC	2.37	2.32	2.29	2.27	2.20	2.13	2.07

Water Flow Rate = 1.33 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	5.12	4.90	4.74	4.59	4.33	4.08	3.83
		SC	5.01	4.81	4.66	4.52	4.29	4.05	3.82
	17	TC	5.32	5.08	4.91	4.74	4.46	4.18	3.90
		SC	4.59	4.44	4.33	4.22	4.05	3.88	3.71
	19	TC	5.57	5.31	5.13	4.94	4.63	4.31	3.99
		SC	4.04	3.94	3.88	3.56	3.73	3.64	3.56
	20	TC	5.64	5.40	5.24	5.08	4.78	4.48	4.18
		SC	3.70	3.62	3.56	3.50	3.41	3.33	3.26
	23	TC	5.82	5.68	5.57	5.47	5.23	4.98	4.74
		SC	2.73	2.68	2.64	2.60	2.53	2.46	2.39
	24	TC	5.89	5.77	5.68	5.60	5.38	5.15	4.93
		SC	2.42	2.37	2.34	2.31	2.25	2.18	2.11

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CKWS020CR/M5WSS020AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	6.39	6.12	5.92	5.72	5.41	5.09	4.78
		SC	6.25	6.00	5.82	5.64	5.35	5.06	4.77
	17	TC	6.63	6.34	6.12	5.91	5.56	5.21	4.86
		SC	5.73	5.54	5.40	5.27	5.05	4.84	4.63
	19	TC	6.95	6.63	6.40	6.17	5.77	5.37	4.98
		SC	5.04	4.92	4.84	4.44	4.65	4.54	4.44
	20	TC	7.03	6.74	6.54	6.33	5.96	5.58	5.21
		SC	4.62	4.51	4.44	4.36	4.26	4.16	4.06
	23	TC	7.26	7.08	6.95	6.82	6.52	6.22	5.91
		SC	3.41	3.34	3.29	3.24	3.15	3.07	2.98
	24	TC	7.34	7.20	7.09	6.99	6.71	6.43	6.15
		SC	3.02	2.96	2.92	2.89	2.80	2.72	2.63

Water Flow Rate = 1.25 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	6.68	6.40	6.19	5.98	5.65	5.32	4.99
		SC	6.54	6.27	6.08	5.89	5.59	5.29	4.99
	17	TC	6.93	6.63	6.40	6.18	5.82	5.45	5.08
		SC	5.99	5.79	5.65	5.51	5.28	5.06	4.84
	19	TC	7.27	6.93	6.69	6.45	6.03	5.62	5.20
		SC	5.27	5.14	5.06	4.64	4.86	4.75	4.64
	20	TC	7.35	7.05	6.84	6.62	6.23	5.84	5.45
		SC	4.83	4.72	4.64	4.56	4.45	4.35	4.25
	23	TC	7.60	7.41	7.27	7.13	6.82	6.50	6.18
		SC	3.56	3.49	3.44	3.39	3.30	3.21	3.12
	24	TC	7.68	7.52	7.41	7.30	7.01	6.72	6.43
		SC	3.15	3.10	3.06	3.02	2.93	2.84	2.75

Water Flow Rate = 1.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	6.83	6.53	6.32	6.11	5.78	5.44	5.10
		SC	6.68	6.41	6.22	6.02	5.71	5.40	5.09
	17	TC	7.08	6.77	6.54	6.32	5.94	5.57	5.19
		SC	6.12	5.92	5.77	5.63	5.40	5.17	4.94
	19	TC	7.43	7.08	6.84	6.59	6.16	5.74	5.32
		SC	5.38	5.25	5.17	4.74	4.97	4.85	4.74
	20	TC	7.51	7.20	6.98	6.76	6.36	5.96	5.57
		SC	4.93	4.82	4.74	4.66	4.55	4.44	4.34
	23	TC	7.76	7.57	7.43	7.29	6.96	6.64	6.32
		SC	3.64	3.57	3.51	3.46	3.37	3.28	3.19
	24	TC	7.84	7.69	7.57	7.46	7.16	6.86	6.57
		SC	3.22	3.16	3.12	3.08	2.99	2.90	2.81

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5WMWS010GR/M5WSS007AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.27 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.35	2.25	2.17	2.10	1.99	1.87	1.75
		SC	2.30	2.20	2.14	2.07	1.96	1.86	1.75
	17	TC	2.44	2.33	2.25	2.17	2.04	1.92	1.79
		SC	2.11	2.04	1.99	1.94	1.86	1.78	1.70
	19	TC	2.55	2.44	2.35	2.27	2.12	1.97	1.83
		SC	1.85	1.81	1.78	1.65	1.71	1.67	1.63
	20	TC	2.58	2.48	2.40	2.33	2.19	2.05	1.91
		SC	1.70	1.66	1.63	1.60	1.57	1.53	1.49
	23	TC	2.67	2.60	2.55	2.51	2.40	2.28	2.17
		SC	1.25	1.23	1.21	1.19	1.16	1.13	1.10
	24	TC	2.70	2.64	2.61	2.57	2.46	2.36	2.26
		SC	1.11	1.09	1.07	1.06	1.03	1.00	0.97

Water Flow Rate = 0.45 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.46	2.35	2.27	2.20	2.08	1.96	1.84
		SC	2.40	2.31	2.24	2.17	2.05	1.94	1.83
	17	TC	2.55	2.43	2.35	2.27	2.14	2.00	1.87
		SC	2.20	2.13	2.08	2.02	1.94	1.86	1.78
	19	TC	2.67	2.55	2.46	2.37	2.22	2.06	1.91
		SC	1.93	1.89	1.86	1.73	1.79	1.74	1.70
	20	TC	2.70	2.59	2.51	2.43	2.29	2.15	2.00
		SC	1.77	1.73	1.70	1.68	1.64	1.60	1.56
	23	TC	2.79	2.72	2.67	2.62	2.50	2.39	2.27
		SC	1.31	1.28	1.26	1.25	1.21	1.18	1.15
	24	TC	2.82	2.76	2.72	2.68	2.58	2.47	2.36
		SC	1.16	1.14	1.12	1.11	1.08	1.04	1.01

Water Flow Rate = 0.63 m^3/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.51	2.40	2.32	2.25	2.12	2.00	1.87
		SC	2.45	2.36	2.28	2.21	2.10	1.99	1.87
	17	TC	2.60	2.49	2.40	2.32	2.18	2.05	1.91
		SC	2.25	2.17	2.12	2.07	1.98	1.90	1.82
	19	TC	2.73	2.60	2.51	2.42	2.27	2.11	1.95
		SC	1.98	1.93	1.90	1.77	1.83	1.78	1.74
	20	TC	2.76	2.65	2.57	2.49	2.34	2.19	2.04
		SC	1.81	1.77	1.74	1.71	1.67	1.63	1.59
	23	TC	2.85	2.78	2.73	2.68	2.56	2.44	2.32
		SC	1.34	1.31	1.29	1.27	1.24	1.20	1.17
	24	TC	2.88	2.82	2.78	2.74	2.63	2.52	2.41
		SC	1.18	1.16	1.15	1.13	1.10	1.07	1.03

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5WMWS010GR/M5WSS010AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.31 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	2.90	2.78	2.69	2.60	2.46	2.31	2.17
		SC	2.84	2.73	2.64	2.56	2.43	2.30	2.17
	17	TC	3.01	2.88	2.78	2.69	2.53	2.37	2.21
		SC	2.60	2.52	2.45	2.39	2.30	2.20	2.10
	19	TC	3.16	3.01	2.91	2.80	2.62	2.44	2.26
		SC	2.29	2.23	2.20	2.05	2.11	2.06	2.02
	20	TC	3.19	3.06	2.97	2.88	2.71	2.54	2.37
		SC	2.10	2.05	2.02	1.98	1.94	1.89	1.85
	23	TC	3.30	3.22	3.16	3.10	2.96	2.82	2.69
		SC	1.55	1.52	1.49	1.47	1.43	1.39	1.35
	24	TC	3.34	3.27	3.22	3.17	3.05	2.92	2.79
		SC	1.37	1.35	1.33	1.31	1.27	1.23	1.20

Water Flow Rate = 0.51 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.04	2.91	2.81	2.72	2.57	2.42	2.27
		SC	2.97	2.85	2.76	2.68	2.54	2.40	2.27
	17	TC	3.15	3.01	2.91	2.81	2.64	2.48	2.31
		SC	2.72	2.63	2.57	2.50	2.40	2.30	2.20
	19	TC	3.30	3.15	3.04	2.93	2.74	2.55	2.36
		SC	2.39	2.34	2.30	2.14	2.21	2.16	2.11
	20	TC	3.34	3.20	3.11	3.01	2.83	2.65	2.47
		SC	2.19	2.14	2.11	2.07	2.02	1.98	1.93
	23	TC	3.45	3.36	3.30	3.24	3.10	2.95	2.81
		SC	1.62	1.59	1.56	1.54	1.50	1.46	1.42
	24	TC	3.49	3.42	3.37	3.32	3.19	3.05	2.92
		SC	1.43	1.41	1.39	1.37	1.33	1.29	1.25

Water Flow Rate = 0.71 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.10	2.97	2.87	2.78	2.62	2.47	2.32
		SC	3.04	2.91	2.82	2.74	2.59	2.45	2.31
	17	TC	3.22	3.07	2.97	2.87	2.70	2.53	2.36
		SC	2.78	2.69	2.62	2.56	2.45	2.35	2.25
	19	TC	3.37	3.22	3.11	2.99	2.80	2.61	2.41
		SC	2.44	2.39	2.35	2.19	2.26	2.20	2.15
	20	TC	3.41	3.27	3.17	3.07	2.89	2.71	2.53
		SC	2.24	2.19	2.15	2.12	2.07	2.02	1.97
	23	TC	3.53	3.44	3.37	3.31	3.16	3.02	2.87
		SC	1.65	1.62	1.60	1.57	1.53	1.49	1.45
	24	TC	3.56	3.49	3.44	3.39	3.25	3.12	2.98
		SC	1.46	1.44	1.42	1.40	1.36	1.32	1.28

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5WMWS015GR/M5WSS015AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.45 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.49	3.34	3.23	3.12	2.95	2.78	2.61
		SC	3.41	3.27	3.18	3.08	2.92	2.76	2.60
	17	TC	3.62	3.46	3.34	3.23	3.04	2.84	2.65
		SC	3.13	3.02	2.95	2.88	2.76	2.64	2.53
	19	TC	3.79	3.62	3.49	3.37	3.15	2.93	2.72
		SC	2.75	2.68	2.64	2.52	2.54	2.48	2.42
	20	TC	3.84	3.68	3.57	3.46	3.25	3.05	2.84
		SC	2.52	2.46	2.42	2.38	2.32	2.27	2.22
	23	TC	3.96	3.86	3.79	3.72	3.56	3.39	3.23
		SC	1.86	1.82	1.79	1.77	1.72	1.67	1.63
	24	TC	4.01	3.93	3.87	3.81	3.66	3.51	3.35
		SC	1.65	1.62	1.60	1.58	1.53	1.48	1.44

Water Flow Rate = 0.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.65	3.49	3.38	3.27	3.09	2.91	2.73
		SC	3.57	3.42	3.32	3.22	3.05	2.89	2.72
	17	TC	3.78	3.62	3.50	3.37	3.17	2.97	2.77
		SC	3.27	3.16	3.08	3.01	2.88	2.76	2.64
	19	TC	3.97	3.78	3.65	3.52	3.29	3.07	2.84
		SC	2.87	2.81	2.76	2.64	2.65	2.59	2.53
	20	TC	4.01	3.85	3.73	3.61	3.40	3.19	2.97
		SC	2.63	2.57	2.53	2.49	2.43	2.37	2.32
	23	TC	4.15	4.04	3.97	3.89	3.72	3.55	3.37
		SC	1.94	1.90	1.88	1.85	1.80	1.75	1.70
	24	TC	4.19	4.11	4.05	3.99	3.83	3.67	3.51
		SC	1.72	1.69	1.67	1.65	1.60	1.55	1.50

Water Flow Rate = 1.05 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	3.73	3.57	3.45	3.34	3.15	2.97	2.78
		SC	3.65	3.50	3.39	3.29	3.12	2.95	2.78
	17	TC	3.87	3.69	3.57	3.45	3.24	3.04	2.83
		SC	3.34	3.23	3.15	3.07	2.95	2.82	2.70
	19	TC	4.05	3.86	3.73	3.60	3.36	3.13	2.90
		SC	2.94	2.87	2.82	2.70	2.71	2.65	2.59
	20	TC	4.10	3.93	3.81	3.69	3.47	3.26	3.04
		SC	2.69	2.63	2.59	2.54	2.48	2.42	2.37
	23	TC	4.23	4.13	4.05	3.98	3.80	3.62	3.45
		SC	1.99	1.95	1.92	1.89	1.84	1.79	1.74
	24	TC	4.28	4.19	4.13	4.07	3.91	3.75	3.58
		SC	1.76	1.73	1.70	1.68	1.63	1.58	1.54

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5WMWS020GR/M5WSS016AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.57 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	4.47	4.28	4.14	4.00	3.78	3.56	3.34
		SC	4.37	4.20	4.07	3.94	3.74	3.54	3.33
	17	TC	4.64	4.43	4.28	4.13	3.89	3.64	3.40
		SC	4.01	3.87	3.78	3.68	3.53	3.38	3.24
	19	TC	4.86	4.64	4.47	4.31	4.04	3.76	3.48
		SC	3.52	3.44	3.38	2.93	3.25	3.18	3.10
	20	TC	4.92	4.71	4.57	4.43	4.17	3.90	3.64
		SC	3.23	3.15	3.10	3.05	2.98	2.91	2.84
	23	TC	5.08	4.95	4.86	4.77	4.56	4.35	4.13
		SC	2.38	2.33	2.30	2.27	2.20	2.14	2.09
	24	TC	5.13	5.03	4.96	4.88	4.69	4.49	4.30
		SC	2.11	2.07	2.04	2.02	1.96	1.90	1.84

Water Flow Rate = 0.95 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	4.67	4.47	4.33	4.18	3.95	3.72	3.49
		SC	4.57	4.39	4.25	4.12	3.91	3.70	3.49
	17	TC	4.85	4.63	4.48	4.32	4.07	3.81	3.55
		SC	4.19	4.05	3.95	3.85	3.69	3.54	3.38
	19	TC	5.08	4.85	4.68	4.51	4.22	3.93	3.64
		SC	3.68	3.60	3.54	3.07	3.40	3.32	3.24
	20	TC	5.14	4.93	4.78	4.63	4.36	4.08	3.81
		SC	3.38	3.30	3.24	3.19	3.11	3.04	2.97
	23	TC	5.31	5.18	5.08	4.99	4.77	4.54	4.32
		SC	2.49	2.44	2.40	2.37	2.31	2.24	2.18
	24	TC	5.37	5.26	5.18	5.11	4.90	4.70	4.49
		SC	2.20	2.17	2.14	2.11	2.05	1.99	1.93

Water Flow Rate = 1.33 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	4.77	4.57	4.42	4.27	4.04	3.80	3.57
		SC	4.67	4.48	4.35	4.21	3.99	3.78	3.56
	17	TC	4.95	4.73	4.57	4.42	4.16	3.89	3.63
		SC	4.28	4.14	4.04	3.94	3.77	3.62	3.46
	19	TC	5.19	4.95	4.78	4.61	4.31	4.01	3.72
		SC	3.76	3.67	3.61	3.13	3.47	3.39	3.31
	20	TC	5.25	5.04	4.88	4.73	4.45	4.17	3.89
		SC	3.45	3.37	3.31	3.26	3.18	3.11	3.03
	23	TC	5.43	5.29	5.19	5.10	4.87	4.64	4.42
		SC	2.54	2.49	2.46	2.42	2.36	2.29	2.23
	24	TC	5.48	5.37	5.30	5.22	5.01	4.80	4.59
		SC	2.25	2.21	2.18	2.16	2.09	2.03	1.97

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5WMWS020GR/M5WSS020AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	5.81	5.56	5.38	5.20	4.91	4.63	4.34
		SC	5.68	5.45	5.29	5.12	4.86	4.60	4.33
	17	TC	6.03	5.76	5.56	5.37	5.05	4.74	4.42
		SC	5.21	5.03	4.91	4.79	4.59	4.40	4.21
	19	TC	6.32	6.02	5.81	5.60	5.24	4.88	4.52
		SC	4.57	4.47	4.40	3.81	4.22	4.13	4.03
	20	TC	6.39	6.13	5.94	5.75	5.41	5.07	4.73
		SC	4.19	4.10	4.03	3.96	3.87	3.78	3.69
	23	TC	6.60	6.43	6.32	6.20	5.92	5.65	5.37
		SC	3.09	3.03	2.99	2.94	2.86	2.79	2.71
	24	TC	6.67	6.54	6.44	6.35	6.09	5.84	5.58
		SC	2.74	2.69	2.66	2.62	2.55	2.47	2.39

Water Flow Rate = 1.25 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	6.07	5.81	5.62	5.44	5.14	4.84	4.54
		SC	5.94	5.70	5.53	5.36	5.08	4.81	4.53
	17	TC	6.30	6.02	5.82	5.62	5.28	4.95	4.62
		SC	5.44	5.26	5.13	5.01	4.80	4.60	4.40
	19	TC	6.60	6.30	6.08	5.86	5.48	5.10	4.73
		SC	4.78	4.67	4.60	3.98	4.42	4.31	4.22
	20	TC	6.68	6.41	6.21	6.02	5.66	5.30	4.95
		SC	4.39	4.28	4.21	4.15	4.05	3.95	3.86
	23	TC	6.90	6.73	6.60	6.48	6.19	5.90	5.62
		SC	3.24	3.17	3.12	3.08	3.00	2.91	2.83
	24	TC	6.98	6.84	6.74	6.64	6.37	6.10	5.84
		SC	2.86	2.81	2.78	2.74	2.66	2.58	2.50

Water Flow Rate = 1.75 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	6.20	5.94	5.74	5.55	5.25	4.94	4.64
		SC	6.07	5.82	5.65	5.47	5.19	4.91	4.63
	17	TC	6.44	6.15	5.94	5.74	5.40	5.06	4.72
		SC	5.56	5.38	5.24	5.11	4.90	4.70	4.49
	19	TC	6.75	6.43	6.21	5.99	5.60	5.21	4.83
		SC	4.89	4.77	4.70	4.07	4.51	4.41	4.31
	20	TC	6.82	6.54	6.34	6.15	5.78	5.42	5.06
		SC	4.48	4.38	4.31	4.24	4.13	4.04	3.94
	23	TC	7.05	6.87	6.75	6.62	6.33	6.03	5.74
		SC	3.31	3.24	3.19	3.15	3.06	2.98	2.89
	24	TC	7.13	6.98	6.88	6.78	6.51	6.24	5.97
		SC	2.93	2.88	2.84	2.80	2.72	2.64	2.56

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5WMWS025GR/M5WSS025AR
Cooling Only/ Cooling Mode (Heatpump)

Water Flow Rate = 0.84 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	7.26	6.95	6.73	6.50	6.14	5.79	5.43
		SC	7.11	6.82	6.61	6.41	6.08	5.75	5.42
	17	TC	7.54	7.20	6.96	6.72	6.32	5.92	5.53
		SC	6.51	6.29	6.14	5.99	5.74	5.50	5.26
	19	TC	7.90	7.53	7.27	7.01	6.56	6.11	5.65
		SC	5.72	5.59	5.50	5.26	5.28	5.16	5.04
	20	TC	7.99	7.66	7.43	7.20	6.77	6.35	5.92
		SC	5.25	5.13	5.04	4.96	4.84	4.73	4.62
	23	TC	8.26	8.05	7.90	7.75	7.41	7.06	6.72
		SC	3.87	3.79	3.74	3.68	3.58	3.48	3.39
	24	TC	8.34	8.18	8.06	7.94	7.62	7.30	6.98
		SC	3.43	3.37	3.32	3.28	3.18	3.09	2.99

Water Flow Rate = 1.40 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	7.60	7.27	7.03	6.80	6.43	6.05	5.68
		SC	7.43	7.13	6.91	6.70	6.35	6.01	5.67
	17	TC	7.88	7.53	7.28	7.03	6.61	6.19	5.78
		SC	6.81	6.58	6.42	6.26	6.01	5.75	5.50
	19	TC	8.26	7.88	7.60	7.33	6.86	6.39	5.91
		SC	5.98	5.85	5.75	5.50	5.53	5.40	5.27
	20	TC	8.35	8.01	7.77	7.52	7.08	6.64	6.19
		SC	5.49	5.36	5.27	5.19	5.06	4.94	4.83
	23	TC	8.63	8.42	8.26	8.11	7.75	7.39	7.03
		SC	4.05	3.97	3.91	3.85	3.75	3.64	3.54
	24	TC	8.72	8.55	8.43	8.30	7.97	7.64	7.30
		SC	3.58	3.52	3.48	3.43	3.33	3.23	3.13

Water Flow Rate = 1.96 m³/hr

Indoor, DB	Indoor, WB	Capacity	Entering Water Temperature, (°C)						
(°C)	(°C)	(kW)	13	20	25	30	35	40	45
27.0	15.5	TC	7.76	7.42	7.19	6.95	6.56	6.18	5.80
		SC	7.59	7.28	7.06	6.84	6.49	6.14	5.79
	17	TC	8.05	7.69	7.44	7.18	6.75	6.33	5.90
		SC	6.96	6.72	6.56	6.40	6.13	5.88	5.62
	19	TC	8.44	8.05	7.77	7.49	7.01	6.52	6.04
		SC	6.11	5.97	5.88	5.62	5.65	5.51	5.39
	20	TC	8.53	8.19	7.94	7.69	7.23	6.78	6.32
		SC	5.61	5.48	5.39	5.30	5.17	5.05	4.93
	23	TC	8.82	8.60	8.44	8.28	7.91	7.55	7.18
		SC	4.13	4.05	3.99	3.93	3.83	3.72	3.62
	24	TC	8.91	8.73	8.61	8.48	8.14	7.80	7.46
		SC	3.66	3.60	3.55	3.50	3.40	3.30	3.20

Note:

1. DB = Dry Bulb, WB = Wet Bulb, TC = Total Capacity, SC = Sensible Capacity
2. All datas above are generated at delta T = Leaving Water Temperature - Entering Water Temperature = 5 °C

M5CCWS010CR/M5WSS007AR
Heating mode (Heatpump)

Water Flow Rate = 0.27 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.03	1.99	1.95	1.93	1.89	1.85	1.79	1.74
12	TC	2.13	2.09	2.05	2.03	1.99	1.95	1.89	1.83
15	TC	2.29	2.25	2.20	2.18	2.14	2.10	2.03	1.97
20	TC	2.54	2.50	2.46	2.44	2.39	2.34	2.27	2.20
25	TC	2.74	2.70	2.65	2.63	2.58	2.53	2.44	2.36
30	TC	2.95	2.90	2.84	2.82	2.77	2.71	2.61	2.52
32	TC	3.03	2.97	2.92	2.90	2.84	2.78	2.68	2.59
35	TC	3.15	3.09	3.04	3.01	2.96	2.89	2.79	2.68

Water Flow Rate = 0.45 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.15	2.11	2.07	2.04	2.00	1.96	1.90	1.84
12	TC	2.26	2.22	2.17	2.15	2.11	2.07	2.00	1.94
15	TC	2.42	2.38	2.33	2.31	2.27	2.22	2.15	2.08
20	TC	2.69	2.65	2.60	2.58	2.53	2.48	2.41	2.33
25	TC	2.91	2.86	2.81	2.78	2.73	2.67	2.59	2.50
30	TC	3.12	3.07	3.01	2.99	2.93	2.87	2.77	2.67
32	TC	3.21	3.15	3.09	3.07	3.01	2.94	2.84	2.74
35	TC	3.33	3.28	3.22	3.19	3.13	3.06	2.95	2.84

Water Flow Rate = 0.63 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.24	2.20	2.15	2.13	2.09	2.04	1.98	1.92
12	TC	2.35	2.31	2.26	2.24	2.20	2.15	2.08	2.02
15	TC	2.52	2.48	2.43	2.41	2.36	2.31	2.24	2.17
20	TC	2.80	2.76	2.71	2.69	2.64	2.59	2.51	2.43
25	TC	3.03	2.98	2.92	2.90	2.85	2.79	2.69	2.60
30	TC	3.25	3.19	3.14	3.11	3.05	2.99	2.88	2.78
32	TC	3.34	3.28	3.22	3.19	3.14	3.07	2.96	2.85
35	TC	3.47	3.41	3.35	3.32	3.26	3.18	3.07	2.96

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS010CR/M5WSS010AR
Heating mode (Heatpump)

Water Flow Rate = 0.31 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.42	2.38	2.33	2.30	2.26	2.21	2.14	2.07
12	TC	2.55	2.50	2.45	2.43	2.38	2.33	2.26	2.18
15	TC	2.73	2.68	2.63	2.61	2.56	2.50	2.43	2.35
20	TC	3.04	2.98	2.93	2.91	2.86	2.80	2.71	2.62
25	TC	3.28	3.22	3.16	3.14	3.08	3.02	2.92	2.82
30	TC	3.52	3.46	3.40	3.37	3.30	3.23	3.12	3.01
32	TC	3.61	3.55	3.49	3.46	3.39	3.32	3.20	3.09
35	TC	3.76	3.69	3.63	3.59	3.53	3.45	3.32	3.20

Water Flow Rate = 0.51 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.57	2.52	2.47	2.44	2.39	2.34	2.27	2.20
12	TC	2.70	2.65	2.59	2.57	2.52	2.47	2.39	2.31
15	TC	2.89	2.84	2.79	2.76	2.71	2.65	2.57	2.49
20	TC	3.21	3.16	3.11	3.08	3.03	2.96	2.87	2.78
25	TC	3.47	3.41	3.35	3.32	3.26	3.19	3.09	2.98
30	TC	3.72	3.66	3.60	3.56	3.50	3.42	3.30	3.19
32	TC	3.83	3.76	3.69	3.66	3.59	3.51	3.39	3.27
35	TC	3.98	3.91	3.84	3.81	3.74	3.65	3.52	3.39

Water Flow Rate = 0.71 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.67	2.62	2.57	2.54	2.49	2.44	2.36	2.29
12	TC	2.81	2.76	2.70	2.68	2.62	2.57	2.49	2.41
15	TC	3.01	2.96	2.90	2.88	2.82	2.76	2.68	2.59
20	TC	3.35	3.29	3.24	3.21	3.15	3.09	2.99	2.90
25	TC	3.61	3.55	3.49	3.46	3.40	3.33	3.22	3.11
30	TC	3.88	3.81	3.75	3.71	3.65	3.56	3.44	3.32
32	TC	3.99	3.92	3.85	3.81	3.74	3.66	3.53	3.41
35	TC	4.15	4.07	4.00	3.96	3.89	3.80	3.67	3.53

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS015CR/M5WSS015AR
Heating mode (Heatpump)

Water Flow Rate = 0.45 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.95	2.89	2.83	2.81	2.75	2.69	2.61	2.52
12	TC	3.10	3.04	2.98	2.95	2.89	2.83	2.75	2.66
15	TC	3.32	3.26	3.20	3.17	3.11	3.05	2.95	2.86
20	TC	3.70	3.63	3.57	3.54	3.48	3.41	3.30	3.20
25	TC	3.99	3.92	3.85	3.82	3.75	3.67	3.55	3.43
30	TC	4.28	4.21	4.13	4.10	4.02	3.93	3.80	3.67
32	TC	4.40	4.32	4.25	4.21	4.13	4.04	3.90	3.76
35	TC	4.58	4.50	4.42	4.38	4.30	4.20	4.05	3.90

Water Flow Rate = 0.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.13	3.06	3.00	2.97	2.91	2.85	2.76	2.67
12	TC	3.28	3.22	3.16	3.13	3.06	3.00	2.91	2.82
15	TC	3.52	3.46	3.39	3.36	3.30	3.23	3.13	3.03
20	TC	3.91	3.85	3.78	3.75	3.68	3.61	3.50	3.38
25	TC	4.22	4.15	4.08	4.04	3.97	3.89	3.76	3.63
30	TC	4.53	4.46	4.38	4.34	4.26	4.17	4.02	3.88
32	TC	4.66	4.58	4.50	4.46	4.38	4.28	4.13	3.98
35	TC	4.85	4.76	4.68	4.63	4.55	4.44	4.29	4.13

Water Flow Rate = 1.05 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.26	3.19	3.13	3.10	3.03	2.97	2.88	2.78
12	TC	3.42	3.36	3.29	3.26	3.19	3.13	3.03	2.93
15	TC	3.67	3.60	3.53	3.50	3.43	3.36	3.26	3.15
20	TC	4.08	4.01	3.94	3.91	3.84	3.76	3.64	3.52
25	TC	4.40	4.33	4.25	4.21	4.14	4.05	3.92	3.78
30	TC	4.72	4.64	4.56	4.52	4.44	4.34	4.19	4.04
32	TC	4.85	4.77	4.68	4.64	4.56	4.46	4.30	4.15
35	TC	5.05	4.96	4.87	4.83	4.74	4.63	4.47	4.30

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS020CR/M5WSS016AR
Heating mode (Heatpump)

Water Flow Rate = 0.57 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.64	3.57	3.50	3.46	3.39	3.32	3.22	3.12
12	TC	3.83	3.76	3.68	3.65	3.57	3.50	3.39	3.28
15	TC	4.10	4.03	3.96	3.92	3.84	3.77	3.65	3.53
20	TC	4.56	4.49	4.41	4.37	4.30	4.21	4.08	3.95
25	TC	4.92	4.84	4.76	4.72	4.63	4.53	4.38	4.24
30	TC	5.29	5.20	5.10	5.06	4.97	4.86	4.69	4.53
32	TC	5.43	5.34	5.24	5.20	5.10	4.99	4.81	4.64
35	TC	5.65	5.55	5.45	5.40	5.30	5.18	5.00	4.82

Water Flow Rate = 0.95 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.86	3.78	3.71	3.67	3.59	3.52	3.41	3.30
12	TC	4.05	3.98	3.90	3.86	3.78	3.71	3.59	3.48
15	TC	4.35	4.27	4.19	4.15	4.07	3.99	3.86	3.74
20	TC	4.83	4.75	4.67	4.63	4.55	4.46	4.32	4.18
25	TC	5.22	5.13	5.04	4.99	4.90	4.80	4.64	4.49
30	TC	5.60	5.50	5.41	5.36	5.26	5.14	4.97	4.79
32	TC	5.75	5.65	5.55	5.50	5.40	5.28	5.10	4.92
35	TC	5.98	5.88	5.77	5.72	5.62	5.49	5.29	5.10

Water Flow Rate = 1.33 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	4.02	3.94	3.86	3.82	3.74	3.67	3.55	3.44
12	TC	4.22	4.14	4.06	4.02	3.94	3.86	3.74	3.62
15	TC	4.53	4.45	4.36	4.32	4.24	4.15	4.02	3.90
20	TC	5.03	4.95	4.87	4.82	4.74	4.64	4.50	4.35
25	TC	5.43	5.34	5.25	5.20	5.11	5.00	4.84	4.67
30	TC	5.83	5.73	5.63	5.58	5.48	5.36	5.17	4.99
32	TC	5.99	5.89	5.78	5.73	5.63	5.50	5.31	5.12
35	TC	6.23	6.12	6.01	5.96	5.85	5.72	5.51	5.31

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS020CR/M5WSS020AR
Heating mode (Heatpump)

Water Flow Rate = 0.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.31	5.20	5.10	5.04	4.94	4.84	4.69	4.54
12	TC	5.57	5.47	5.36	5.31	5.20	5.10	4.94	4.78
15	TC	5.97	5.87	5.76	5.70	5.60	5.48	5.31	5.14
20	TC	6.64	6.53	6.42	6.36	6.25	6.13	5.93	5.74
25	TC	7.17	7.05	6.93	6.86	6.74	6.60	6.38	6.17
30	TC	7.70	7.56	7.43	7.36	7.23	7.07	6.83	6.59
32	TC	7.91	7.77	7.63	7.56	7.43	7.26	7.01	6.76
35	TC	8.22	8.08	7.94	7.86	7.72	7.54	7.28	7.01

Water Flow Rate = 1.25 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.62	5.51	5.40	5.34	5.23	5.12	4.96	4.80
12	TC	5.90	5.79	5.68	5.62	5.51	5.40	5.23	5.06
15	TC	6.33	6.21	6.10	6.04	5.93	5.81	5.62	5.44
20	TC	7.03	6.92	6.80	6.74	6.62	6.49	6.28	6.08
25	TC	7.59	7.46	7.33	7.27	7.14	6.99	6.76	6.53
30	TC	8.15	8.01	7.87	7.80	7.66	7.49	7.23	6.98
32	TC	8.37	8.23	8.08	8.01	7.86	7.69	7.42	7.15
35	TC	8.71	8.56	8.40	8.33	8.18	7.99	7.71	7.42

Water Flow Rate = 1.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.85	5.74	5.62	5.56	5.45	5.34	5.17	5.00
12	TC	6.15	6.03	5.91	5.85	5.74	5.62	5.45	5.27
15	TC	6.59	6.47	6.35	6.29	6.17	6.05	5.86	5.67
20	TC	7.33	7.21	7.08	7.02	6.90	6.76	6.55	6.34
25	TC	7.91	7.77	7.64	7.57	7.44	7.28	7.04	6.80
30	TC	8.49	8.34	8.20	8.12	7.98	7.80	7.53	7.27
32	TC	8.72	8.57	8.42	8.34	8.19	8.01	7.73	7.45
35	TC	9.07	8.91	8.75	8.68	8.52	8.32	8.03	7.73

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS025CR/M5WSS025AR
Heating mode (Heatpump)

Water Flow Rate = 0.84 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	6.46	6.33	6.21	6.14	6.01	5.89	5.71	5.53
12	TC	6.79	6.66	6.53	6.46	6.34	6.21	6.01	5.82
15	TC	7.28	7.15	7.01	6.95	6.82	6.68	6.47	6.26
20	TC	8.09	7.96	7.82	7.75	7.62	7.46	7.23	7.00
25	TC	8.73	8.58	8.44	8.36	8.21	8.04	7.77	7.51
30	TC	9.37	9.21	9.05	8.97	8.81	8.61	8.32	8.02
32	TC	9.63	9.46	9.30	9.21	9.05	8.84	8.54	8.23
35	TC	10.02	9.84	9.67	9.58	9.40	9.19	8.86	8.54

Water Flow Rate = 1.40 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	6.84	6.71	6.57	6.51	6.37	6.24	6.05	5.85
12	TC	7.19	7.05	6.91	6.85	6.71	6.57	6.37	6.16
15	TC	7.71	7.57	7.43	7.36	7.22	7.07	6.85	6.63
20	TC	8.57	8.43	8.28	8.21	8.07	7.90	7.66	7.41
25	TC	9.25	9.09	8.93	8.85	8.70	8.51	8.23	7.95
30	TC	9.93	9.76	9.59	9.50	9.33	9.12	8.81	8.50
32	TC	10.20	10.02	9.85	9.76	9.58	9.36	9.04	8.72
35	TC	10.61	10.42	10.24	10.14	9.96	9.73	9.39	9.04

Water Flow Rate = 1.96 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	7.13	6.99	6.85	6.78	6.64	6.50	6.30	6.10
12	TC	7.49	7.35	7.20	7.13	6.99	6.85	6.63	6.42
15	TC	8.03	7.88	7.74	7.66	7.52	7.37	7.14	6.91
20	TC	8.93	8.78	8.63	8.55	8.40	8.23	7.97	7.72
25	TC	9.63	9.47	9.31	9.22	9.06	8.87	8.58	8.28
30	TC	10.34	10.16	9.98	9.90	9.72	9.50	9.18	8.85
32	TC	10.63	10.44	10.26	10.16	9.98	9.75	9.42	9.08
35	TC	11.05	10.86	10.66	10.57	10.37	10.14	9.78	9.42

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS030CR/M5WSS030AR
Heating mode (Heatpump)

Water Flow Rate = 1.08 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	7.16	7.01	6.87	6.80	6.66	6.52	6.32	6.12
12	TC	7.52	7.37	7.23	7.16	7.01	6.87	6.66	6.44
15	TC	8.06	7.91	7.77	7.69	7.55	7.39	7.16	6.93
20	TC	8.96	8.81	8.66	8.58	8.43	8.26	8.00	7.75
25	TC	9.67	9.50	9.34	9.26	9.09	8.90	8.61	8.31
30	TC	10.38	10.20	10.02	9.93	9.75	9.54	9.21	8.88
32	TC	10.66	10.48	10.29	10.20	10.02	9.79	9.45	9.11
35	TC	11.09	10.90	10.70	10.61	10.41	10.17	9.81	9.45

Water Flow Rate = 1.80 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	7.58	7.43	7.28	7.20	7.05	6.91	6.69	6.48
12	TC	7.96	7.81	7.66	7.58	7.43	7.28	7.05	6.82
15	TC	8.53	8.38	8.22	8.15	7.99	7.83	7.59	7.34
20	TC	9.49	9.33	9.17	9.09	8.93	8.75	8.48	8.20
25	TC	10.24	10.07	9.89	9.80	9.63	9.42	9.11	8.81
30	TC	10.99	10.80	10.61	10.52	10.33	10.10	9.75	9.41
32	TC	11.29	11.10	10.90	10.80	10.61	10.37	10.01	9.65
35	TC	11.75	11.54	11.33	11.23	11.03	10.77	10.39	10.01

Water Flow Rate = 2.52 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	7.89	7.74	7.58	7.50	7.35	7.20	6.97	6.75
12	TC	8.29	8.13	7.98	7.90	7.74	7.58	7.34	7.11
15	TC	8.89	8.73	8.57	8.49	8.33	8.16	7.90	7.65
20	TC	9.88	9.72	9.55	9.47	9.30	9.11	8.83	8.54
25	TC	10.67	10.49	10.30	10.21	10.03	9.82	9.49	9.17
30	TC	11.45	11.25	11.06	10.96	10.76	10.52	10.16	9.80
32	TC	11.76	11.56	11.36	11.25	11.05	10.80	10.43	10.05
35	TC	12.24	12.02	11.81	11.70	11.49	11.22	10.83	10.43

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS040CR/M5WSS040AR
Heating mode (Heatpump)

Water Flow Rate = 1.26 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	9.34	9.16	8.97	8.88	8.70	8.52	8.25	7.99
12	TC	9.81	9.63	9.44	9.35	9.16	8.97	8.69	8.41
15	TC	10.52	10.33	10.14	10.04	9.85	9.65	9.35	9.05
20	TC	11.70	11.50	11.31	11.21	11.01	10.79	10.45	10.11
25	TC	12.63	12.41	12.20	12.09	11.87	11.62	11.24	10.86
30	TC	13.55	13.32	13.09	12.97	12.73	12.45	12.03	11.60
32	TC	13.93	13.68	13.44	13.32	13.08	12.78	12.34	11.90
35	TC	14.48	14.23	13.98	13.85	13.60	13.28	12.81	12.34

Water Flow Rate = 2.10 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	9.90	9.70	9.50	9.40	9.21	9.02	8.74	8.46
12	TC	10.39	10.20	10.00	9.90	9.70	9.50	9.21	8.91
15	TC	11.14	10.94	10.74	10.64	10.44	10.22	9.90	9.59
20	TC	12.39	12.18	11.97	11.87	11.66	11.42	11.07	10.71
25	TC	13.37	13.14	12.92	12.80	12.57	12.31	11.90	11.50
30	TC	14.35	14.11	13.86	13.73	13.49	13.19	12.74	12.29
32	TC	14.75	14.49	14.24	14.11	13.85	13.54	13.07	12.60
35	TC	15.34	15.07	14.80	14.67	14.40	14.07	13.57	13.07

Water Flow Rate = 2.94 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	10.31	10.10	9.90	9.80	9.59	9.40	9.11	8.81
12	TC	10.83	10.62	10.41	10.31	10.10	9.90	9.59	9.28
15	TC	11.61	11.40	11.19	11.08	10.87	10.65	10.32	9.99
20	TC	12.90	12.69	12.47	12.37	12.15	11.90	11.53	11.16
25	TC	13.93	13.69	13.45	13.34	13.10	12.82	12.40	11.98
30	TC	14.95	14.69	14.44	14.31	14.05	13.74	13.27	12.80
32	TC	15.36	15.10	14.83	14.70	14.43	14.10	13.61	13.13
35	TC	15.98	15.70	15.42	15.28	15.00	14.65	14.14	13.62

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS050CR/M5WSS050AR
Heating mode (Heatpump)

Water Flow Rate = 1.53 m^3/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	11.77	11.53	11.30	11.19	10.95	10.73	10.40	10.06
12	TC	12.36	12.13	11.89	11.77	11.54	11.30	10.95	10.60
15	TC	13.25	13.01	12.77	12.65	12.41	12.16	11.78	11.40
20	TC	14.73	14.49	14.24	14.12	13.87	13.59	13.16	12.74
25	TC	15.90	15.63	15.36	15.23	14.95	14.63	14.15	13.67
30	TC	17.07	16.78	16.48	16.33	16.04	15.68	15.15	14.61
32	TC	17.54	17.23	16.93	16.78	16.47	16.10	15.54	14.99
35	TC	18.24	17.92	17.60	17.44	17.12	16.73	16.14	15.55

Water Flow Rate = 2.55 m^3/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	12.46	12.22	11.97	11.85	11.60	11.36	11.01	10.66
12	TC	13.09	12.84	12.59	12.47	12.22	11.97	11.60	11.22
15	TC	14.03	13.78	13.52	13.40	13.14	12.88	12.47	12.07
20	TC	15.60	15.34	15.08	14.95	14.69	14.39	13.94	13.49
25	TC	16.84	16.55	16.27	16.12	15.84	15.50	14.99	14.48
30	TC	18.08	17.77	17.45	17.30	16.99	16.61	16.04	15.47
32	TC	18.57	18.25	17.93	17.77	17.44	17.05	16.46	15.87
35	TC	19.32	18.98	18.64	18.47	18.13	17.72	17.09	16.47

Water Flow Rate = 3.57 m^3/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	12.98	12.73	12.47	12.34	12.08	11.84	11.47	11.10
12	TC	13.64	13.38	13.12	12.99	12.73	12.47	12.08	11.69
15	TC	14.62	14.35	14.09	13.96	13.69	13.41	13.00	12.58
20	TC	16.25	15.98	15.71	15.57	15.30	14.99	14.52	14.05
25	TC	17.54	17.24	16.95	16.80	16.50	16.14	15.62	15.09
30	TC	18.83	18.51	18.18	18.02	17.69	17.30	16.71	16.12
32	TC	19.35	19.01	18.68	18.51	18.17	17.76	17.15	16.53
35	TC	20.12	19.77	19.42	19.24	18.89	18.46	17.80	17.15

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS060CR/M5WSS060AR
Heating mode (Heatpump)

Water Flow Rate = 1.90 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	13.38	13.12	12.85	12.72	12.45	12.20	11.82	11.44
12	TC	14.06	13.79	13.52	13.39	13.12	12.85	12.45	12.05
15	TC	15.07	14.79	14.52	14.39	14.11	13.83	13.39	12.96
20	TC	16.75	16.47	16.19	16.05	15.77	15.45	14.97	14.49
25	TC	18.08	17.77	17.47	17.31	17.01	16.64	16.10	15.55
30	TC	19.41	19.08	18.74	18.57	18.24	17.83	17.22	16.61
32	TC	19.94	19.60	19.25	19.08	18.73	18.31	17.67	17.04
35	TC	20.74	20.38	20.02	19.83	19.47	19.02	18.35	17.68

Water Flow Rate = 3.17 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	14.17	13.89	13.61	13.47	13.19	12.92	12.52	12.12
12	TC	14.89	14.60	14.32	14.18	13.89	13.61	13.19	12.76
15	TC	15.96	15.67	15.38	15.23	14.95	14.64	14.19	13.73
20	TC	17.74	17.45	17.15	17.00	16.70	16.36	15.85	15.34
25	TC	19.15	18.82	18.50	18.33	18.01	17.62	17.05	16.47
30	TC	20.56	20.20	19.85	19.67	19.31	18.88	18.24	17.60
32	TC	21.12	20.75	20.39	20.20	19.84	19.39	18.72	18.05
35	TC	21.97	21.58	21.20	21.00	20.62	20.15	19.43	18.72

Water Flow Rate = 4.44 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	14.76	14.47	14.18	14.03	13.74	13.46	13.04	12.62
12	TC	15.51	15.21	14.91	14.77	14.47	14.18	13.74	13.29
15	TC	16.62	16.32	16.02	15.87	15.57	15.25	14.78	14.30
20	TC	18.48	18.17	17.86	17.71	17.40	17.04	16.51	15.98
25	TC	19.95	19.61	19.27	19.10	18.76	18.36	17.76	17.15
30	TC	21.42	21.05	20.68	20.49	20.12	19.67	19.00	18.33
32	TC	22.00	21.62	21.24	21.05	20.66	20.20	19.50	18.80
35	TC	22.88	22.48	22.08	21.88	21.48	20.99	20.25	19.50

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS040CR/M5WST040AR
Heating mode (Heatpump)

Water Flow Rate = 1.38 m³/hr

EWT (°C)	Capacity (kW)	INDOOR DB (°C)							
		15	17	19	20	22	24	27	30
10	TC	9.23	9.04	8.86	8.77	8.59	8.41	8.15	7.89
12	TC	9.69	9.51	9.32	9.23	9.04	8.86	8.58	8.31
15	TC	10.39	10.20	10.01	9.92	9.73	9.53	9.23	8.94
20	TC	11.55	11.36	11.16	11.07	10.87	10.65	10.32	9.99
25	TC	12.47	12.25	12.04	11.94	11.72	11.47	11.10	10.72
30	TC	13.38	13.15	12.92	12.80	12.57	12.29	11.87	11.45
32	TC	13.75	13.51	13.27	13.15	12.91	12.62	12.19	11.75
35	TC	14.30	14.05	13.80	13.67	13.42	13.11	12.65	12.19

Water Flow Rate = 2.30 m³/hr

EWT (°C)	Capacity (kW)	INDOOR DB (°C)							
		15	17	19	20	22	24	27	30
10	TC	9.77	9.58	9.38	9.29	9.09	8.91	8.63	8.35
12	TC	10.26	10.07	9.87	9.77	9.58	9.38	9.09	8.80
15	TC	11.00	10.80	10.60	10.50	10.30	10.09	9.78	9.47
20	TC	12.23	12.03	11.82	11.72	11.52	11.28	10.93	10.58
25	TC	13.20	12.98	12.75	12.64	12.42	12.15	11.75	11.35
30	TC	14.17	13.93	13.68	13.56	13.32	13.02	12.58	12.13
32	TC	14.56	14.31	14.06	13.93	13.68	13.37	12.90	12.44
35	TC	15.14	14.88	14.61	14.48	14.22	13.89	13.40	12.91

Water Flow Rate = 3.22 m³/hr

EWT (°C)	Capacity (kW)	INDOOR DB (°C)							
		15	17	19	20	22	24	27	30
10	TC	10.18	9.98	9.77	9.67	9.47	9.28	8.99	8.70
12	TC	10.69	10.49	10.28	10.18	9.98	9.77	9.47	9.17
15	TC	11.46	11.25	11.04	10.94	10.73	10.52	10.19	9.86
20	TC	12.74	12.53	12.32	12.21	12.00	11.75	11.38	11.02
25	TC	13.75	13.52	13.28	13.17	12.93	12.66	12.24	11.83
30	TC	14.76	14.51	14.25	14.13	13.87	13.56	13.10	12.64
32	TC	15.17	14.90	14.64	14.51	14.25	13.92	13.44	12.96
35	TC	15.78	15.50	15.22	15.08	14.81	14.47	13.96	13.45

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS050CR/M5WST050AR
Heating mode (Heatpump)

Water Flow Rate = 1.74 m³/hr

EWT (°C)	Capacity (kW)	INDOOR DB (°C)							
		15	17	19	20	22	24	27	30
10	TC	11.53	11.30	11.08	10.96	10.73	10.51	10.19	9.86
12	TC	12.11	11.88	11.65	11.54	11.30	11.07	10.73	10.39
15	TC	12.98	12.75	12.51	12.40	12.16	11.91	11.54	11.17
20	TC	14.44	14.20	13.95	13.83	13.59	13.31	12.90	12.48
25	TC	15.58	15.32	15.05	14.92	14.65	14.34	13.87	13.40
30	TC	16.73	16.44	16.15	16.01	15.72	15.37	14.84	14.32
32	TC	17.19	16.89	16.59	16.44	16.14	15.78	15.23	14.69
35	TC	17.87	17.56	17.25	17.09	16.78	16.39	15.81	15.24

Water Flow Rate = 2.90 m³/hr

EWT (°C)	Capacity (kW)	INDOOR DB (°C)							
		15	17	19	20	22	24	27	30
10	TC	12.21	11.97	11.73	11.61	11.37	11.14	10.79	10.44
12	TC	12.83	12.58	12.34	12.22	11.97	11.73	11.36	11.00
15	TC	13.75	13.50	13.25	13.13	12.88	12.62	12.22	11.83
20	TC	15.29	15.03	14.78	14.65	14.39	14.10	13.66	13.22
25	TC	16.50	16.22	15.94	15.80	15.52	15.19	14.69	14.19
30	TC	17.72	17.41	17.10	16.95	16.64	16.27	15.72	15.16
32	TC	18.20	17.89	17.57	17.41	17.09	16.71	16.13	15.55
35	TC	18.93	18.60	18.27	18.10	17.77	17.36	16.75	16.14

Water Flow Rate = 4.06 m³/hr

EWT (°C)	Capacity (kW)	INDOOR DB (°C)							
		15	17	19	20	22	24	27	30
10	TC	12.72	12.47	12.22	12.09	11.84	11.60	11.24	10.88
12	TC	13.36	13.11	12.85	12.73	12.47	12.22	11.84	11.46
15	TC	14.32	14.07	13.81	13.68	13.42	13.14	12.73	12.32
20	TC	15.93	15.66	15.39	15.26	14.99	14.69	14.23	13.77
25	TC	17.19	16.90	16.61	16.46	16.17	15.82	15.30	14.78
30	TC	18.45	18.14	17.82	17.66	17.34	16.95	16.37	15.80
32	TC	18.96	18.63	18.30	18.14	17.81	17.41	16.80	16.20
35	TC	19.72	19.37	19.03	18.86	18.51	18.09	17.45	16.81

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CCWS060CR/M5WST060AR
Heating mode (Heatpump)

Water Flow Rate = 2.07 m³/hr

EWT (°C)	Capacity (kW)	INDOOR DB (°C)							
		15	17	19	20	22	24	27	30
10	TC	13.15	12.89	12.63	12.50	12.24	11.99	11.62	11.25
12	TC	13.82	13.55	13.29	13.16	12.89	12.63	12.24	11.85
15	TC	14.81	14.54	14.27	14.14	13.87	13.59	13.17	12.74
20	TC	16.47	16.19	15.92	15.78	15.50	15.19	14.71	14.24
25	TC	17.77	17.47	17.17	17.02	16.72	16.36	15.82	15.28
30	TC	19.08	18.75	18.42	18.26	17.93	17.53	16.93	16.33
32	TC	19.60	19.26	18.92	18.75	18.41	18.00	17.37	16.75
35	TC	20.39	20.03	19.67	19.50	19.14	18.70	18.04	17.38

Water Flow Rate = 3.45 m³/hr

EWT (°C)	Capacity (kW)	INDOOR DB (°C)							
		15	17	19	20	22	24	27	30
10	TC	13.93	13.65	13.38	13.24	12.96	12.70	12.31	11.91
12	TC	14.63	14.35	14.07	13.93	13.65	13.38	12.96	12.54
15	TC	15.68	15.40	15.12	14.97	14.69	14.39	13.94	13.49
20	TC	17.44	17.15	16.86	16.71	16.42	16.08	15.58	15.08
25	TC	18.82	18.50	18.18	18.02	17.70	17.32	16.75	16.19
30	TC	20.21	19.86	19.51	19.33	18.99	18.56	17.93	17.30
32	TC	20.76	20.40	20.04	19.86	19.50	19.06	18.40	17.74
35	TC	21.59	21.21	20.84	20.65	20.27	19.80	19.10	18.40

Water Flow Rate = 4.83 m³/hr

EWT (°C)	Capacity (kW)	INDOOR DB (°C)							
		15	17	19	20	22	24	27	30
10	TC	14.51	14.22	13.94	13.79	13.50	13.23	12.82	12.41
12	TC	15.24	14.95	14.66	14.52	14.22	13.94	13.50	13.07
15	TC	16.34	16.04	15.75	15.60	15.30	14.99	14.53	14.06
20	TC	18.17	17.86	17.56	17.41	17.10	16.75	16.23	15.71
25	TC	19.61	19.27	18.94	18.77	18.44	18.05	17.45	16.86
30	TC	21.05	20.69	20.32	20.14	19.78	19.34	18.68	18.02
32	TC	21.63	21.25	20.88	20.69	20.31	19.85	19.17	18.48
35	TC	22.49	22.10	21.70	21.51	21.11	20.63	19.90	19.17

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS020AR/M5WSS016AR
Heating mode (Heatpump)

Water Flow Rate = 0.57 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.80	3.73	3.65	3.61	3.54	3.47	3.36	3.25
12	TC	3.99	3.92	3.84	3.80	3.73	3.65	3.54	3.42
15	TC	4.28	4.20	4.13	4.09	4.01	3.93	3.81	3.68
20	TC	4.76	4.68	4.60	4.56	4.48	4.39	4.25	4.12
25	TC	5.14	5.05	4.96	4.92	4.83	4.73	4.57	4.42
30	TC	5.52	5.42	5.32	5.28	5.18	5.07	4.89	4.72
32	TC	5.67	5.57	5.47	5.42	5.32	5.20	5.02	4.84
35	TC	5.89	5.79	5.69	5.64	5.53	5.40	5.21	5.02

Water Flow Rate = 0.95 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	4.03	3.95	3.87	3.83	3.75	3.67	3.56	3.44
12	TC	4.23	4.15	4.07	4.03	3.95	3.87	3.75	3.63
15	TC	4.53	4.45	4.37	4.33	4.25	4.16	4.03	3.90
20	TC	5.04	4.96	4.87	4.83	4.75	4.65	4.50	4.36
25	TC	5.44	5.35	5.26	5.21	5.12	5.01	4.84	4.68
30	TC	5.84	5.74	5.64	5.59	5.49	5.37	5.18	5.00
32	TC	6.00	5.90	5.79	5.74	5.64	5.51	5.32	5.13
35	TC	6.24	6.13	6.02	5.97	5.86	5.72	5.52	5.32

Water Flow Rate = 1.33 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	4.19	4.11	4.03	3.99	3.90	3.82	3.71	3.59
12	TC	4.41	4.32	4.24	4.20	4.11	4.03	3.90	3.78
15	TC	4.72	4.64	4.55	4.51	4.42	4.33	4.20	4.06
20	TC	5.25	5.16	5.08	5.03	4.94	4.84	4.69	4.54
25	TC	5.67	5.57	5.47	5.43	5.33	5.22	5.05	4.87
30	TC	6.08	5.98	5.87	5.82	5.72	5.59	5.40	5.21
32	TC	6.25	6.14	6.03	5.98	5.87	5.74	5.54	5.34
35	TC	6.50	6.39	6.27	6.22	6.10	5.96	5.75	5.54

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS020AR/M5WSS020AR
Heating mode (Heatpump)

Water Flow Rate = 0.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	4.72	4.63	4.54	4.49	4.40	4.31	4.17	4.04
12	TC	4.96	4.87	4.77	4.72	4.63	4.54	4.39	4.25
15	TC	5.32	5.22	5.13	5.08	4.98	4.88	4.73	4.58
20	TC	5.91	5.81	5.72	5.67	5.57	5.45	5.28	5.11
25	TC	6.38	6.27	6.16	6.11	6.00	5.87	5.68	5.49
30	TC	6.85	6.73	6.61	6.56	6.44	6.29	6.08	5.86
32	TC	7.04	6.92	6.79	6.73	6.61	6.46	6.24	6.01
35	TC	7.32	7.19	7.06	7.00	6.87	6.71	6.48	6.24

Water Flow Rate = 1.25 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.00	4.90	4.80	4.75	4.65	4.56	4.42	4.28
12	TC	5.25	5.15	5.05	5.00	4.90	4.80	4.65	4.50
15	TC	5.63	5.53	5.43	5.38	5.28	5.17	5.01	4.85
20	TC	6.26	6.16	6.05	6.00	5.90	5.77	5.59	5.41
25	TC	6.76	6.64	6.53	6.47	6.36	6.22	6.02	5.81
30	TC	7.26	7.13	7.00	6.94	6.82	6.67	6.44	6.21
32	TC	7.45	7.32	7.20	7.13	7.00	6.84	6.61	6.37
35	TC	7.75	7.62	7.48	7.41	7.28	7.11	6.86	6.61

Water Flow Rate = 1.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.21	5.11	5.00	4.95	4.85	4.75	4.60	4.46
12	TC	5.47	5.37	5.26	5.21	5.11	5.00	4.85	4.69
15	TC	5.87	5.76	5.65	5.60	5.50	5.38	5.22	5.05
20	TC	6.52	6.41	6.30	6.25	6.14	6.02	5.83	5.64
25	TC	7.04	6.92	6.80	6.74	6.62	6.48	6.27	6.05
30	TC	7.56	7.43	7.30	7.23	7.10	6.94	6.71	6.47
32	TC	7.77	7.63	7.50	7.43	7.29	7.13	6.88	6.64
35	TC	8.08	7.93	7.79	7.72	7.58	7.41	7.15	6.88

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS025AR/M5WSS025AR
Heating mode (Heatpump)

Water Flow Rate = 0.84 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.88	5.76	5.65	5.59	5.47	5.36	5.19	5.03
12	TC	6.18	6.06	5.94	5.88	5.76	5.65	5.47	5.30
15	TC	6.62	6.50	6.38	6.32	6.20	6.08	5.89	5.70
20	TC	7.36	7.24	7.12	7.05	6.93	6.79	6.58	6.36
25	TC	7.95	7.81	7.68	7.61	7.47	7.31	7.07	6.83
30	TC	8.53	8.38	8.24	8.16	8.01	7.84	7.57	7.30
32	TC	8.76	8.61	8.46	8.38	8.23	8.05	7.77	7.49
35	TC	9.11	8.95	8.80	8.72	8.56	8.36	8.06	7.77

Water Flow Rate = 1.40 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	6.23	6.10	5.98	5.92	5.80	5.68	5.50	5.32
12	TC	6.54	6.42	6.29	6.23	6.10	5.98	5.79	5.61
15	TC	7.01	6.88	6.76	6.69	6.57	6.43	6.23	6.03
20	TC	7.80	7.67	7.54	7.47	7.34	7.19	6.97	6.74
25	TC	8.41	8.27	8.13	8.06	7.91	7.74	7.49	7.24
30	TC	9.03	8.88	8.72	8.64	8.49	8.30	8.01	7.73
32	TC	9.28	9.12	8.96	8.88	8.72	8.52	8.22	7.93
35	TC	9.65	9.48	9.31	9.23	9.06	8.85	8.54	8.23

Water Flow Rate = 1.96 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	6.49	6.36	6.23	6.17	6.04	5.91	5.73	5.55
12	TC	6.81	6.68	6.55	6.49	6.36	6.23	6.04	5.84
15	TC	7.30	7.17	7.04	6.97	6.84	6.70	6.49	6.28
20	TC	8.12	7.99	7.85	7.78	7.65	7.49	7.26	7.02
25	TC	8.77	8.62	8.47	8.39	8.24	8.07	7.80	7.54
30	TC	9.41	9.25	9.08	9.00	8.84	8.64	8.35	8.05
32	TC	9.67	9.50	9.33	9.25	9.08	8.88	8.57	8.26
35	TC	10.05	9.88	9.70	9.61	9.44	9.22	8.90	8.57

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS030AR/M5WSS030AR
Heating mode (Heatpump)

Water Flow Rate = 1.08 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	7.15	7.01	6.86	6.79	6.65	6.52	6.31	6.11
12	TC	7.51	7.36	7.22	7.15	7.01	6.86	6.65	6.44
15	TC	8.05	7.90	7.76	7.68	7.54	7.38	7.15	6.92
20	TC	8.95	8.80	8.65	8.57	8.42	8.25	7.99	7.74
25	TC	9.66	9.49	9.33	9.25	9.08	8.89	8.60	8.31
30	TC	10.37	10.19	10.01	9.92	9.74	9.52	9.20	8.87
32	TC	10.65	10.47	10.28	10.19	10.00	9.78	9.44	9.10
35	TC	11.08	10.88	10.69	10.59	10.40	10.16	9.80	9.44

Water Flow Rate = 1.80 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	7.57	7.42	7.27	7.19	7.04	6.90	6.69	6.47
12	TC	7.95	7.80	7.65	7.57	7.42	7.27	7.04	6.82
15	TC	8.52	8.37	8.21	8.14	7.98	7.82	7.58	7.33
20	TC	9.48	9.32	9.16	9.08	8.92	8.74	8.47	8.19
25	TC	10.23	10.05	9.88	9.79	9.62	9.41	9.10	8.80
30	TC	10.98	10.79	10.60	10.51	10.32	10.09	9.74	9.40
32	TC	11.28	11.09	10.89	10.79	10.60	10.36	10.00	9.64
35	TC	11.73	11.53	11.32	11.22	11.01	10.76	10.38	10.00

Water Flow Rate = 2.52 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	7.88	7.73	7.57	7.49	7.34	7.19	6.97	6.74
12	TC	8.28	8.12	7.97	7.89	7.73	7.57	7.34	7.10
15	TC	8.88	8.72	8.56	8.48	8.32	8.15	7.89	7.64
20	TC	9.87	9.71	9.54	9.46	9.29	9.10	8.82	8.54
25	TC	10.65	10.47	10.29	10.20	10.02	9.81	9.48	9.16
30	TC	11.44	11.24	11.04	10.94	10.75	10.51	10.15	9.79
32	TC	11.75	11.55	11.34	11.24	11.04	10.79	10.41	10.04
35	TC	12.22	12.01	11.79	11.69	11.47	11.21	10.81	10.42

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS040AR/M5WSS040AR
Heating mode (Heatpump)

Water Flow Rate = 1.26 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	9.56	9.37	9.19	9.09	8.90	8.72	8.45	8.18
12	TC	10.05	9.85	9.66	9.57	9.38	9.18	8.90	8.61
15	TC	10.77	10.57	10.38	10.28	10.09	9.88	9.57	9.27
20	TC	11.97	11.77	11.57	11.47	11.27	11.04	10.70	10.35
25	TC	12.92	12.70	12.48	12.37	12.15	11.89	11.50	11.11
30	TC	13.87	13.63	13.39	13.27	13.03	12.74	12.31	11.87
32	TC	14.25	14.01	13.76	13.64	13.39	13.09	12.63	12.18
35	TC	14.82	14.56	14.31	14.18	13.92	13.60	13.12	12.64

Water Flow Rate = 2.10 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	10.13	9.93	9.73	9.63	9.43	9.23	8.95	8.66
12	TC	10.64	10.44	10.23	10.13	9.93	9.73	9.42	9.12
15	TC	11.40	11.20	10.99	10.89	10.68	10.46	10.14	9.81
20	TC	12.68	12.47	12.26	12.15	11.94	11.69	11.33	10.96
25	TC	13.69	13.45	13.22	13.10	12.87	12.60	12.18	11.77
30	TC	14.69	14.44	14.19	14.06	13.80	13.50	13.04	12.58
32	TC	15.10	14.83	14.57	14.44	14.18	13.86	13.38	12.90
35	TC	15.70	15.42	15.15	15.01	14.74	14.40	13.89	13.38

Water Flow Rate = 2.94 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	10.55	10.34	10.13	10.03	9.82	9.62	9.32	9.02
12	TC	11.08	10.87	10.66	10.55	10.34	10.13	9.82	9.50
15	TC	11.88	11.67	11.45	11.34	11.13	10.90	10.56	10.22
20	TC	13.21	12.99	12.77	12.66	12.44	12.18	11.80	11.42
25	TC	14.26	14.01	13.77	13.65	13.41	13.12	12.69	12.26
30	TC	15.31	15.04	14.78	14.64	14.38	14.06	13.58	13.10
32	TC	15.72	15.45	15.18	15.04	14.77	14.44	13.94	13.44
35	TC	16.35	16.07	15.78	15.64	15.35	15.00	14.47	13.94

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS050AR/M5WSS050AR
Heating mode (Heatpump)

Water Flow Rate = 1.53 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	12.56	12.31	12.07	11.94	11.69	11.45	11.10	10.74
12	TC	13.20	12.94	12.69	12.57	12.32	12.06	11.69	11.31
15	TC	14.15	13.89	13.63	13.51	13.25	12.98	12.58	12.17
20	TC	15.73	15.47	15.20	15.07	14.81	14.51	14.05	13.60
25	TC	16.98	16.69	16.40	16.25	15.96	15.62	15.11	14.60
30	TC	18.22	17.91	17.59	17.44	17.12	16.74	16.17	15.60
32	TC	18.72	18.40	18.07	17.91	17.59	17.19	16.59	16.00
35	TC	19.47	19.13	18.79	18.62	18.28	17.86	17.23	16.60

Water Flow Rate = 2.55 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	13.30	13.04	12.78	12.65	12.38	12.13	11.75	11.38
12	TC	13.97	13.71	13.44	13.31	13.04	12.78	12.38	11.98
15	TC	14.98	14.71	14.44	14.30	14.03	13.75	13.32	12.89
20	TC	16.66	16.38	16.10	15.96	15.68	15.36	14.88	14.40
25	TC	17.98	17.67	17.37	17.21	16.91	16.55	16.00	15.46
30	TC	19.30	18.97	18.63	18.47	18.13	17.73	17.12	16.52
32	TC	19.83	19.48	19.14	18.97	18.62	18.20	17.57	16.94
35	TC	20.62	20.26	19.90	19.72	19.36	18.91	18.25	17.58

Water Flow Rate = 3.57 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	13.86	13.58	13.31	13.17	12.90	12.64	12.24	11.85
12	TC	14.56	14.28	14.00	13.86	13.59	13.31	12.90	12.48
15	TC	15.61	15.32	15.04	14.90	14.62	14.32	13.87	13.43
20	TC	17.35	17.06	16.77	16.63	16.34	16.00	15.50	15.00
25	TC	18.73	18.41	18.09	17.93	17.61	17.24	16.67	16.11
30	TC	20.11	19.76	19.41	19.24	18.89	18.47	17.84	17.21
32	TC	20.66	20.30	19.94	19.76	19.40	18.96	18.31	17.65
35	TC	21.48	21.11	20.73	20.54	20.17	19.70	19.01	18.31

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS010CR/M5WSS007AR
Heating mode (Heatpump)

Water Flow Rate = 0.27 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	1.84	1.81	1.77	1.75	1.71	1.68	1.63	1.58
12	TC	1.93	1.90	1.86	1.84	1.81	1.77	1.71	1.66
15	TC	2.07	2.04	2.00	1.98	1.94	1.90	1.84	1.78
20	TC	2.31	2.27	2.23	2.21	2.17	2.13	2.06	1.99
25	TC	2.49	2.45	2.40	2.38	2.34	2.29	2.22	2.14
30	TC	2.67	2.63	2.58	2.56	2.51	2.45	2.37	2.29
32	TC	2.75	2.70	2.65	2.63	2.58	2.52	2.43	2.35
35	TC	2.86	2.81	2.76	2.73	2.68	2.62	2.53	2.43

Water Flow Rate = 0.45 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	1.95	1.91	1.87	1.85	1.82	1.78	1.72	1.67
12	TC	2.05	2.01	1.97	1.95	1.91	1.87	1.82	1.76
15	TC	2.20	2.16	2.12	2.10	2.06	2.02	1.95	1.89
20	TC	2.44	2.40	2.36	2.34	2.30	2.25	2.18	2.11
25	TC	2.64	2.59	2.55	2.52	2.48	2.43	2.35	2.27
30	TC	2.83	2.78	2.73	2.71	2.66	2.60	2.51	2.42
32	TC	2.91	2.86	2.81	2.78	2.73	2.67	2.58	2.48
35	TC	3.02	2.97	2.92	2.89	2.84	2.77	2.68	2.58

Water Flow Rate = 0.63 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.03	1.99	1.95	1.93	1.89	1.85	1.80	1.74
12	TC	2.13	2.09	2.05	2.03	1.99	1.95	1.89	1.83
15	TC	2.29	2.25	2.21	2.18	2.14	2.10	2.03	1.97
20	TC	2.54	2.50	2.46	2.44	2.40	2.35	2.27	2.20
25	TC	2.75	2.70	2.65	2.63	2.58	2.53	2.44	2.36
30	TC	2.95	2.90	2.85	2.82	2.77	2.71	2.62	2.52
32	TC	3.03	2.98	2.92	2.90	2.84	2.78	2.68	2.59
35	TC	3.15	3.09	3.04	3.01	2.96	2.89	2.79	2.68

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS010CR/M5WSS010AR
Heating mode (Heatpump)

Water Flow Rate = 0.31 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.31	2.26	2.22	2.19	2.15	2.10	2.04	1.97
12	TC	2.42	2.38	2.33	2.31	2.26	2.21	2.15	2.08
15	TC	2.60	2.55	2.50	2.48	2.43	2.38	2.31	2.23
20	TC	2.89	2.84	2.79	2.77	2.72	2.66	2.58	2.50
25	TC	3.12	3.06	3.01	2.98	2.93	2.87	2.77	2.68
30	TC	3.35	3.29	3.23	3.20	3.14	3.07	2.97	2.86
32	TC	3.44	3.38	3.32	3.29	3.23	3.16	3.05	2.94
35	TC	3.57	3.51	3.45	3.42	3.36	3.28	3.16	3.05

Water Flow Rate = 0.51 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.44	2.39	2.35	2.32	2.27	2.23	2.16	2.09
12	TC	2.57	2.52	2.47	2.44	2.39	2.35	2.27	2.20
15	TC	2.75	2.70	2.65	2.63	2.58	2.52	2.44	2.37
20	TC	3.06	3.01	2.96	2.93	2.88	2.82	2.73	2.64
25	TC	3.30	3.24	3.19	3.16	3.10	3.04	2.94	2.84
30	TC	3.54	3.48	3.42	3.39	3.33	3.25	3.14	3.03
32	TC	3.64	3.58	3.51	3.48	3.42	3.34	3.23	3.11
35	TC	3.79	3.72	3.65	3.62	3.55	3.47	3.35	3.23

Water Flow Rate = 0.71 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.54	2.49	2.44	2.42	2.37	2.32	2.25	2.18
12	TC	2.67	2.62	2.57	2.55	2.49	2.44	2.37	2.29
15	TC	2.86	2.81	2.76	2.74	2.68	2.63	2.55	2.46
20	TC	3.19	3.13	3.08	3.05	3.00	2.94	2.85	2.75
25	TC	3.44	3.38	3.32	3.29	3.23	3.16	3.06	2.96
30	TC	3.69	3.63	3.56	3.53	3.47	3.39	3.27	3.16
32	TC	3.79	3.73	3.66	3.63	3.56	3.48	3.36	3.24
35	TC	3.94	3.87	3.81	3.77	3.70	3.62	3.49	3.36

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS015CR/M5WSS015AR
Heating mode (Heatpump)

Water Flow Rate = 0.45 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.79	2.73	2.68	2.65	2.59	2.54	2.46	2.38
12	TC	2.93	2.87	2.82	2.79	2.73	2.68	2.59	2.51
15	TC	3.14	3.08	3.02	3.00	2.94	2.88	2.79	2.70
20	TC	3.49	3.43	3.37	3.34	3.28	3.22	3.12	3.02
25	TC	3.77	3.70	3.64	3.61	3.54	3.47	3.35	3.24
30	TC	4.04	3.97	3.90	3.87	3.80	3.71	3.59	3.46
32	TC	4.15	4.08	4.01	3.97	3.90	3.81	3.68	3.55
35	TC	4.32	4.24	4.17	4.13	4.05	3.96	3.82	3.68

Water Flow Rate = 0.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.95	2.89	2.83	2.80	2.75	2.69	2.61	2.52
12	TC	3.10	3.04	2.98	2.95	2.89	2.83	2.75	2.66
15	TC	3.32	3.26	3.20	3.17	3.11	3.05	2.95	2.86
20	TC	3.69	3.63	3.57	3.54	3.48	3.41	3.30	3.19
25	TC	3.99	3.92	3.85	3.82	3.75	3.67	3.55	3.43
30	TC	4.28	4.21	4.13	4.10	4.02	3.93	3.80	3.66
32	TC	4.40	4.32	4.25	4.21	4.13	4.04	3.90	3.76
35	TC	4.57	4.49	4.41	4.37	4.29	4.20	4.05	3.90

Water Flow Rate = 1.05 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.07	3.01	2.95	2.92	2.86	2.80	2.72	2.63
12	TC	3.23	3.17	3.11	3.08	3.01	2.95	2.86	2.77
15	TC	3.46	3.40	3.34	3.30	3.24	3.18	3.08	2.98
20	TC	3.85	3.78	3.72	3.69	3.62	3.55	3.44	3.33
25	TC	4.15	4.08	4.01	3.98	3.91	3.82	3.70	3.57
30	TC	4.46	4.38	4.31	4.27	4.19	4.10	3.96	3.82
32	TC	4.58	4.50	4.42	4.38	4.30	4.21	4.06	3.91
35	TC	4.76	4.68	4.60	4.56	4.47	4.37	4.22	4.06

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS020CR/M5WSS016AR
Heating mode (Heatpump)

Water Flow Rate = 0.57 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.80	3.73	3.65	3.61	3.54	3.47	3.36	3.25
12	TC	3.99	3.92	3.84	3.80	3.73	3.65	3.54	3.42
15	TC	4.28	4.20	4.13	4.09	4.01	3.93	3.81	3.68
20	TC	4.76	4.68	4.60	4.56	4.48	4.39	4.25	4.12
25	TC	5.14	5.05	4.96	4.92	4.83	4.73	4.57	4.42
30	TC	5.52	5.42	5.32	5.28	5.18	5.07	4.89	4.72
32	TC	5.67	5.57	5.47	5.42	5.32	5.20	5.02	4.84
35	TC	5.89	5.79	5.69	5.64	5.53	5.40	5.21	5.02

Water Flow Rate = 0.95 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	4.03	3.95	3.87	3.83	3.75	3.67	3.56	3.44
12	TC	4.23	4.15	4.07	4.03	3.95	3.87	3.75	3.63
15	TC	4.53	4.45	4.37	4.33	4.25	4.16	4.03	3.90
20	TC	5.04	4.96	4.87	4.83	4.75	4.65	4.50	4.36
25	TC	5.44	5.35	5.26	5.21	5.12	5.01	4.84	4.68
30	TC	5.84	5.74	5.64	5.59	5.49	5.37	5.18	5.00
32	TC	6.00	5.90	5.79	5.74	5.64	5.51	5.32	5.13
35	TC	6.24	6.13	6.02	5.97	5.86	5.72	5.52	5.32

Water Flow Rate = 1.33 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	4.19	4.11	4.03	3.99	3.90	3.82	3.71	3.59
12	TC	4.41	4.32	4.24	4.20	4.11	4.03	3.90	3.78
15	TC	4.72	4.64	4.55	4.51	4.42	4.33	4.20	4.06
20	TC	5.25	5.16	5.08	5.03	4.94	4.84	4.69	4.54
25	TC	5.67	5.57	5.47	5.43	5.33	5.22	5.05	4.87
30	TC	6.08	5.98	5.87	5.82	5.72	5.59	5.40	5.21
32	TC	6.25	6.14	6.03	5.98	5.87	5.74	5.54	5.34
35	TC	6.50	6.39	6.27	6.22	6.10	5.96	5.75	5.54

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5CKWS020CR/M5WSS020AR
Heating mode (Heatpump)

Water Flow Rate = 0.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.07	4.97	4.87	4.82	4.72	4.62	4.48	4.33
12	TC	5.32	5.22	5.12	5.07	4.97	4.87	4.72	4.57
15	TC	5.71	5.60	5.50	5.45	5.35	5.24	5.07	4.91
20	TC	6.35	6.24	6.13	6.08	5.97	5.85	5.67	5.49
25	TC	6.85	6.73	6.62	6.56	6.44	6.30	6.10	5.89
30	TC	7.35	7.23	7.10	7.04	6.91	6.76	6.52	6.29
32	TC	7.56	7.42	7.29	7.23	7.10	6.94	6.70	6.46
35	TC	7.86	7.72	7.58	7.51	7.38	7.21	6.95	6.70

Water Flow Rate = 1.25 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.37	5.26	5.16	5.10	5.00	4.89	4.74	4.59
12	TC	5.64	5.53	5.42	5.37	5.26	5.16	5.00	4.83
15	TC	6.04	5.94	5.83	5.77	5.66	5.55	5.37	5.20
20	TC	6.72	6.61	6.50	6.44	6.33	6.20	6.00	5.81
25	TC	7.25	7.13	7.01	6.95	6.82	6.68	6.46	6.24
30	TC	7.79	7.65	7.52	7.45	7.32	7.15	6.91	6.67
32	TC	8.00	7.86	7.72	7.65	7.51	7.35	7.09	6.84
35	TC	8.32	8.18	8.03	7.96	7.81	7.63	7.36	7.09

Water Flow Rate = 1.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.59	5.48	5.37	5.32	5.20	5.10	4.94	4.78
12	TC	5.87	5.76	5.65	5.59	5.48	5.37	5.20	5.04
15	TC	6.30	6.18	6.07	6.01	5.90	5.78	5.60	5.42
20	TC	7.00	6.88	6.77	6.71	6.59	6.46	6.26	6.05
25	TC	7.56	7.43	7.30	7.24	7.11	6.95	6.73	6.50
30	TC	8.11	7.97	7.83	7.76	7.62	7.45	7.20	6.94
32	TC	8.33	8.19	8.05	7.97	7.83	7.65	7.39	7.12
35	TC	8.67	8.52	8.36	8.29	8.14	7.95	7.67	7.39

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5WMWS010GR/M5WSS007AR
Heating mode (Heatpump)

Water Flow Rate = 0.27 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.03	1.99	1.95	1.93	1.89	1.85	1.79	1.74
12	TC	2.13	2.09	2.05	2.03	1.99	1.95	1.89	1.83
15	TC	2.29	2.25	2.20	2.18	2.14	2.10	2.03	1.97
20	TC	2.54	2.50	2.46	2.44	2.39	2.34	2.27	2.20
25	TC	2.74	2.70	2.65	2.63	2.58	2.53	2.44	2.36
30	TC	2.95	2.90	2.84	2.82	2.77	2.71	2.61	2.52
32	TC	3.03	2.97	2.92	2.90	2.84	2.78	2.68	2.59
35	TC	3.15	3.09	3.04	3.01	2.96	2.89	2.79	2.68

Water Flow Rate = 0.45 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.15	2.11	2.07	2.04	2.00	1.96	1.90	1.84
12	TC	2.26	2.22	2.17	2.15	2.11	2.07	2.00	1.94
15	TC	2.42	2.38	2.33	2.31	2.27	2.22	2.15	2.08
20	TC	2.69	2.65	2.60	2.58	2.53	2.48	2.41	2.33
25	TC	2.91	2.86	2.81	2.78	2.73	2.67	2.59	2.50
30	TC	3.12	3.07	3.01	2.99	2.93	2.87	2.77	2.67
32	TC	3.21	3.15	3.09	3.07	3.01	2.94	2.84	2.74
35	TC	3.33	3.28	3.22	3.19	3.13	3.06	2.95	2.84

Water Flow Rate = 0.63 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.24	2.20	2.15	2.13	2.09	2.04	1.98	1.92
12	TC	2.35	2.31	2.26	2.24	2.20	2.15	2.08	2.02
15	TC	2.52	2.48	2.43	2.41	2.36	2.31	2.24	2.17
20	TC	2.80	2.76	2.71	2.69	2.64	2.59	2.51	2.43
25	TC	3.03	2.98	2.92	2.90	2.85	2.79	2.69	2.60
30	TC	3.25	3.19	3.14	3.11	3.05	2.99	2.88	2.78
32	TC	3.34	3.28	3.22	3.19	3.14	3.07	2.96	2.85
35	TC	3.47	3.41	3.35	3.32	3.26	3.18	3.07	2.96

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5WMWS010GR/M5WSS010AR
Heating mode (Heatpump)

Water Flow Rate = 0.31 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.42	2.38	2.33	2.30	2.26	2.21	2.14	2.07
12	TC	2.55	2.50	2.45	2.43	2.38	2.33	2.26	2.18
15	TC	2.73	2.68	2.63	2.61	2.56	2.50	2.43	2.35
20	TC	3.04	2.98	2.93	2.91	2.86	2.80	2.71	2.62
25	TC	3.28	3.22	3.16	3.14	3.08	3.02	2.92	2.82
30	TC	3.52	3.46	3.40	3.37	3.30	3.23	3.12	3.01
32	TC	3.61	3.55	3.49	3.46	3.39	3.32	3.20	3.09
35	TC	3.76	3.69	3.63	3.59	3.53	3.45	3.32	3.20

Water Flow Rate = 0.51 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.57	2.52	2.47	2.44	2.39	2.34	2.27	2.20
12	TC	2.70	2.65	2.59	2.57	2.52	2.47	2.39	2.31
15	TC	2.89	2.84	2.79	2.76	2.71	2.65	2.57	2.49
20	TC	3.21	3.16	3.11	3.08	3.03	2.96	2.87	2.78
25	TC	3.47	3.41	3.35	3.32	3.26	3.19	3.09	2.98
30	TC	3.72	3.66	3.60	3.56	3.50	3.42	3.30	3.19
32	TC	3.83	3.76	3.69	3.66	3.59	3.51	3.39	3.27
35	TC	3.98	3.91	3.84	3.81	3.74	3.65	3.52	3.39

Water Flow Rate = 0.71 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.67	2.62	2.57	2.54	2.49	2.44	2.36	2.29
12	TC	2.81	2.76	2.70	2.68	2.62	2.57	2.49	2.41
15	TC	3.01	2.96	2.90	2.88	2.82	2.76	2.68	2.59
20	TC	3.35	3.29	3.24	3.21	3.15	3.09	2.99	2.90
25	TC	3.61	3.55	3.49	3.46	3.40	3.33	3.22	3.11
30	TC	3.88	3.81	3.75	3.71	3.65	3.56	3.44	3.32
32	TC	3.99	3.92	3.85	3.81	3.74	3.66	3.53	3.41
35	TC	4.15	4.07	4.00	3.96	3.89	3.80	3.67	3.53

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5WMWS015GR/M5WSS015AR
Heating mode (Heatpump)

Water Flow Rate = 0.45 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	2.95	2.89	2.83	2.81	2.75	2.69	2.61	2.52
12	TC	3.10	3.04	2.98	2.95	2.89	2.83	2.75	2.66
15	TC	3.32	3.26	3.20	3.17	3.11	3.05	2.95	2.86
20	TC	3.70	3.63	3.57	3.54	3.48	3.41	3.30	3.20
25	TC	3.99	3.92	3.85	3.82	3.75	3.67	3.55	3.43
30	TC	4.28	4.21	4.13	4.10	4.02	3.93	3.80	3.67
32	TC	4.40	4.32	4.25	4.21	4.13	4.04	3.90	3.76
35	TC	4.58	4.50	4.42	4.38	4.30	4.20	4.05	3.90

Water Flow Rate = 0.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.13	3.06	3.00	2.97	2.91	2.85	2.76	2.67
12	TC	3.28	3.22	3.16	3.13	3.06	3.00	2.91	2.82
15	TC	3.52	3.46	3.39	3.36	3.30	3.23	3.13	3.03
20	TC	3.91	3.85	3.78	3.75	3.68	3.61	3.50	3.38
25	TC	4.22	4.15	4.08	4.04	3.97	3.89	3.76	3.63
30	TC	4.53	4.46	4.38	4.34	4.26	4.17	4.02	3.88
32	TC	4.66	4.58	4.50	4.46	4.38	4.28	4.13	3.98
35	TC	4.85	4.76	4.68	4.63	4.55	4.44	4.29	4.13

Water Flow Rate = 1.05 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.26	3.19	3.13	3.10	3.03	2.97	2.88	2.78
12	TC	3.42	3.36	3.29	3.26	3.19	3.13	3.03	2.93
15	TC	3.67	3.60	3.53	3.50	3.43	3.36	3.26	3.15
20	TC	4.08	4.01	3.94	3.91	3.84	3.76	3.64	3.52
25	TC	4.40	4.33	4.25	4.21	4.14	4.05	3.92	3.78
30	TC	4.72	4.64	4.56	4.52	4.44	4.34	4.19	4.04
32	TC	4.85	4.77	4.68	4.64	4.56	4.46	4.30	4.15
35	TC	5.05	4.96	4.87	4.83	4.74	4.63	4.47	4.30

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5WMWS020GR/M5WSS016AR
Heating mode (Heatpump)

Water Flow Rate = 0.57 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.41	3.34	3.27	3.24	3.17	3.11	3.01	2.91
12	TC	3.58	3.51	3.44	3.41	3.34	3.27	3.17	3.07
15	TC	3.84	3.77	3.70	3.66	3.59	3.52	3.41	3.30
20	TC	4.27	4.20	4.12	4.09	4.02	3.94	3.81	3.69
25	TC	4.61	4.53	4.45	4.41	4.33	4.24	4.10	3.96
30	TC	4.94	4.86	4.77	4.73	4.65	4.54	4.39	4.23
32	TC	5.08	4.99	4.90	4.86	4.77	4.66	4.50	4.34
35	TC	5.28	5.19	5.10	5.05	4.96	4.85	4.67	4.50

Water Flow Rate = 0.95 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.61	3.54	3.47	3.43	3.36	3.29	3.19	3.09
12	TC	3.79	3.72	3.65	3.61	3.54	3.47	3.36	3.25
15	TC	4.06	3.99	3.92	3.88	3.81	3.73	3.61	3.50
20	TC	4.52	4.44	4.37	4.33	4.25	4.17	4.04	3.91
25	TC	4.88	4.79	4.71	4.67	4.59	4.49	4.34	4.19
30	TC	5.24	5.15	5.06	5.01	4.92	4.81	4.65	4.48
32	TC	5.38	5.29	5.19	5.15	5.05	4.94	4.77	4.60
35	TC	5.59	5.50	5.40	5.35	5.25	5.13	4.95	4.77

Water Flow Rate = 1.33 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	3.76	3.69	3.61	3.57	3.50	3.43	3.32	3.22
12	TC	3.95	3.87	3.80	3.76	3.69	3.61	3.50	3.39
15	TC	4.23	4.16	4.08	4.04	3.97	3.88	3.76	3.64
20	TC	4.71	4.63	4.55	4.51	4.43	4.34	4.21	4.07
25	TC	5.08	4.99	4.91	4.86	4.78	4.68	4.52	4.37
30	TC	5.45	5.36	5.27	5.22	5.12	5.01	4.84	4.67
32	TC	5.60	5.51	5.41	5.36	5.26	5.14	4.97	4.79
35	TC	5.83	5.73	5.62	5.57	5.47	5.35	5.16	4.97

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5WMWS020GR/M5WSS020AR
Heating mode (Heatpump)

Water Flow Rate = 0.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	4.96	4.86	4.76	4.71	4.62	4.52	4.38	4.24
12	TC	5.21	5.11	5.01	4.96	4.86	4.76	4.61	4.47
15	TC	5.58	5.48	5.38	5.33	5.23	5.12	4.96	4.80
20	TC	6.21	6.10	6.00	5.95	5.85	5.73	5.55	5.37
25	TC	6.70	6.59	6.47	6.42	6.30	6.17	5.96	5.76
30	TC	7.19	7.07	6.95	6.88	6.76	6.61	6.38	6.16
32	TC	7.39	7.26	7.13	7.07	6.94	6.79	6.55	6.32
35	TC	7.69	7.55	7.42	7.35	7.22	7.05	6.80	6.55

Water Flow Rate = 1.25 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.25	5.15	5.04	4.99	4.89	4.79	4.64	4.49
12	TC	5.52	5.41	5.31	5.25	5.15	5.04	4.89	4.73
15	TC	5.91	5.81	5.70	5.65	5.54	5.43	5.26	5.09
20	TC	6.57	6.46	6.35	6.30	6.19	6.06	5.87	5.68
25	TC	7.10	6.98	6.86	6.79	6.67	6.53	6.32	6.10
30	TC	7.62	7.49	7.36	7.29	7.16	7.00	6.76	6.52
32	TC	7.83	7.69	7.56	7.49	7.35	7.19	6.94	6.69
35	TC	8.14	8.00	7.86	7.78	7.64	7.47	7.20	6.94

Water Flow Rate = 1.75 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.47	5.36	5.25	5.20	5.09	4.99	4.83	4.68
12	TC	5.75	5.64	5.53	5.47	5.36	5.25	5.09	4.93
15	TC	6.16	6.05	5.94	5.88	5.77	5.65	5.48	5.30
20	TC	6.85	6.73	6.62	6.56	6.45	6.32	6.12	5.92
25	TC	7.39	7.27	7.14	7.08	6.95	6.80	6.58	6.36
30	TC	7.94	7.80	7.66	7.59	7.46	7.29	7.04	6.79
32	TC	8.15	8.01	7.87	7.80	7.66	7.49	7.23	6.97
35	TC	8.48	8.33	8.18	8.11	7.96	7.78	7.50	7.23

Note:
1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

M5WMWS025GR/M5WSS025AR
Heating mode (Heatpump)

Water Flow Rate = 0.84 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	5.86	5.75	5.63	5.57	5.46	5.35	5.18	5.01
12	TC	6.16	6.04	5.92	5.87	5.75	5.63	5.46	5.28
15	TC	6.60	6.48	6.36	6.30	6.18	6.06	5.87	5.68
20	TC	7.34	7.22	7.10	7.03	6.91	6.77	6.56	6.35
25	TC	7.92	7.79	7.65	7.59	7.45	7.29	7.05	6.81
30	TC	8.51	8.36	8.21	8.14	7.99	7.81	7.55	7.28
32	TC	8.74	8.59	8.44	8.36	8.21	8.02	7.75	7.47
35	TC	9.09	8.93	8.77	8.69	8.53	8.34	8.04	7.75

Water Flow Rate = 1.40 m³/hr

EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	6.21	6.09	5.96	5.90	5.78	5.66	5.49	5.31
12	TC	6.52	6.40	6.27	6.21	6.09	5.96	5.78	5.59
15	TC	6.99	6.87	6.74	6.68	6.55	6.42	6.22	6.02
20	TC	7.78	7.65	7.52	7.45	7.32	7.17	6.95	6.72
25	TC	8.39	8.25	8.11	8.04	7.89	7.72	7.47	7.22
30	TC	9.01	8.85	8.70	8.62	8.46	8.28	7.99	7.71
32	TC	9.26	9.10	8.93	8.85	8.69	8.50	8.20	7.91
35	TC	9.63	9.46	9.29	9.21	9.04	8.83	8.52	8.21

Water Flow Rate = 1.96 m³/hr

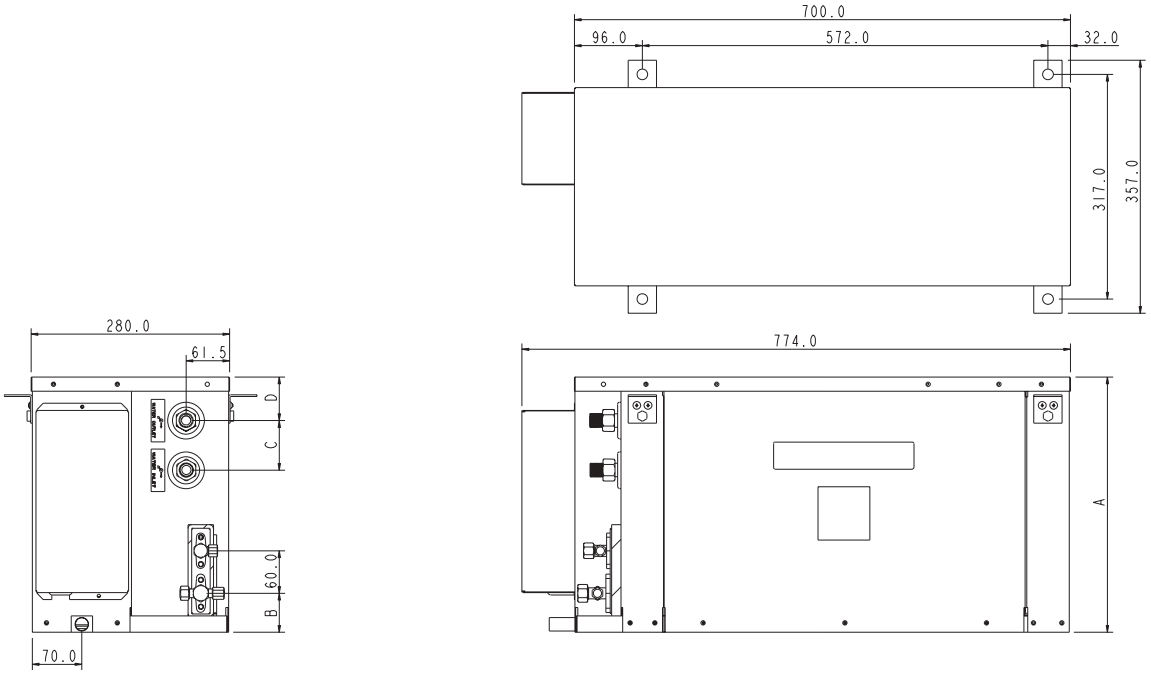
EWT	Capacity	INDOOR DB (°C)							
(°C)	(kW)	15	17	19	20	22	24	27	30
10	TC	6.47	6.34	6.21	6.15	6.02	5.90	5.72	5.53
12	TC	6.80	6.67	6.54	6.47	6.34	6.21	6.02	5.83
15	TC	7.28	7.15	7.02	6.95	6.82	6.68	6.48	6.27
20	TC	8.10	7.96	7.83	7.76	7.63	7.47	7.24	7.00
25	TC	8.74	8.59	8.44	8.37	8.22	8.05	7.78	7.52
30	TC	9.38	9.22	9.06	8.98	8.82	8.62	8.33	8.03
32	TC	9.64	9.47	9.31	9.22	9.06	8.85	8.55	8.24
35	TC	10.03	9.85	9.68	9.59	9.41	9.20	8.87	8.55

Note:

1. TC = Total Capacity, EWT = Entering Water Temperature
2. All datas above are generated at delta T = Entering Water Temperature - Leaving Water Temperature = 5 °C

Dimensional Data

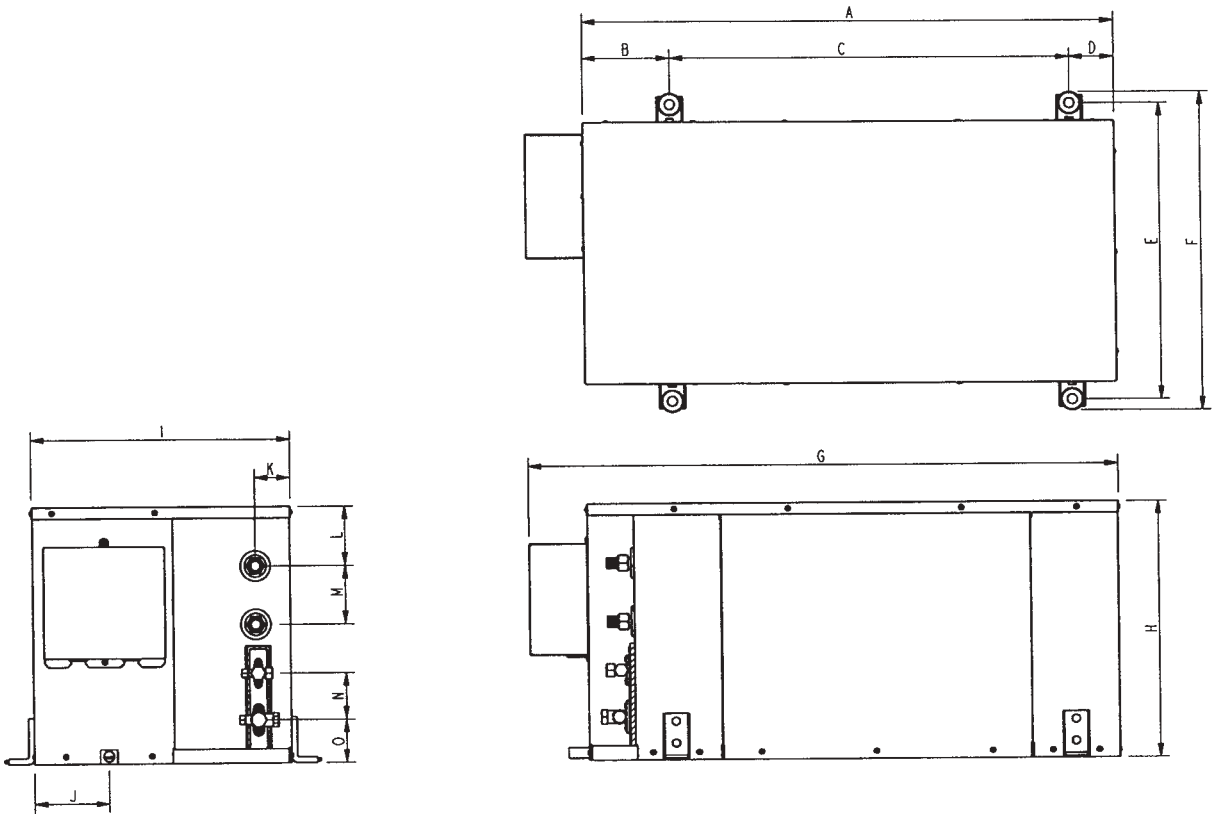
Outdoor Unit
Model : M5WSS007/ 010/ 015/ 016/ 020 / 025 AR



Dimensions in mm

MODEL	A	B	C	D
M5WSS007AR	300.0	55.0	55.0	51.5
M5WSS010AR/ 15AR	330.0	55.0	70.0	61.5
M5WSS016/020/025AR	360.0	55.0	70.0	61.5

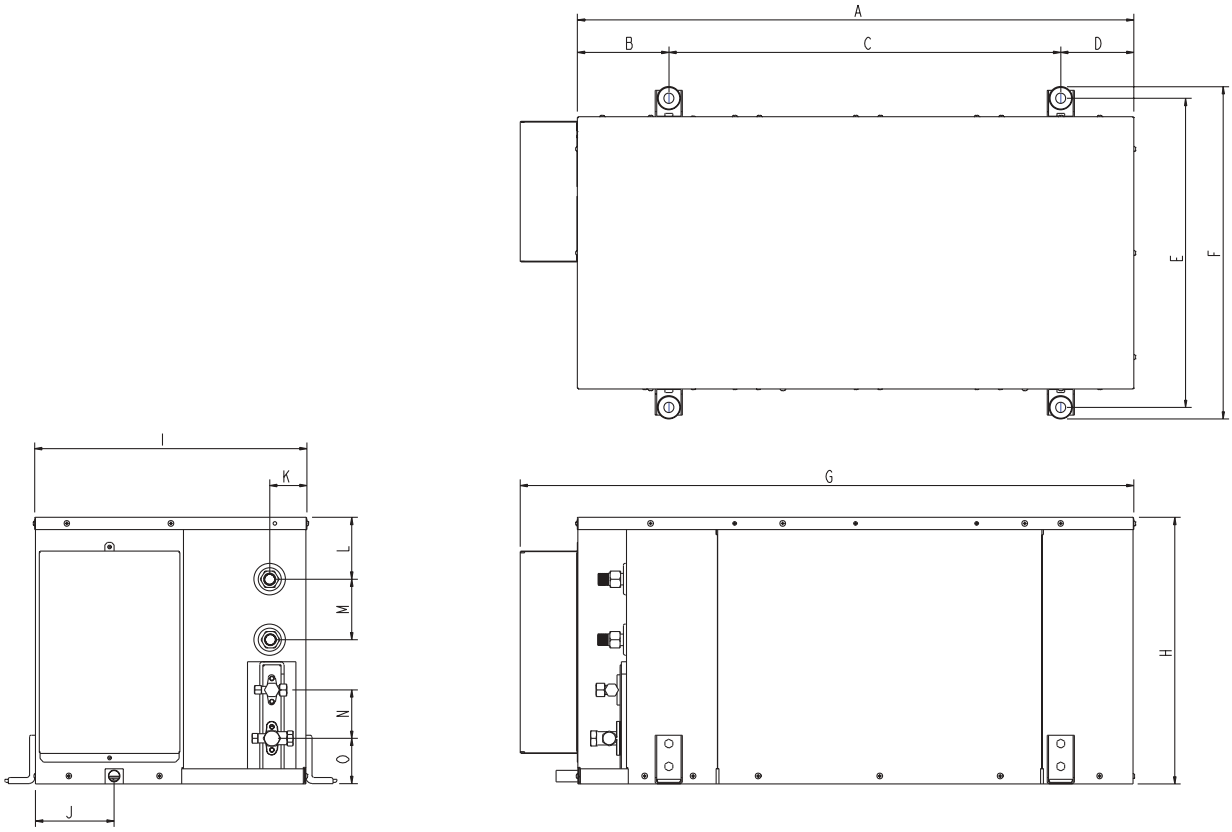
Model : M5WSS 030 / 040/ 050 / 060AR



Dimensions in mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
M5WSS030AR	780	152	556	72	380	418.5	844	385	320	130	61.5	94	80	60	62
M5WSS040AR	920	151	692	77	511	549.5	1020	440	450	130	61.5	102	100	80	75
M5WSS050AR/060AR	920	162	682	76	610	648.5	1020	504	550	130	61.5	107	100	80	75

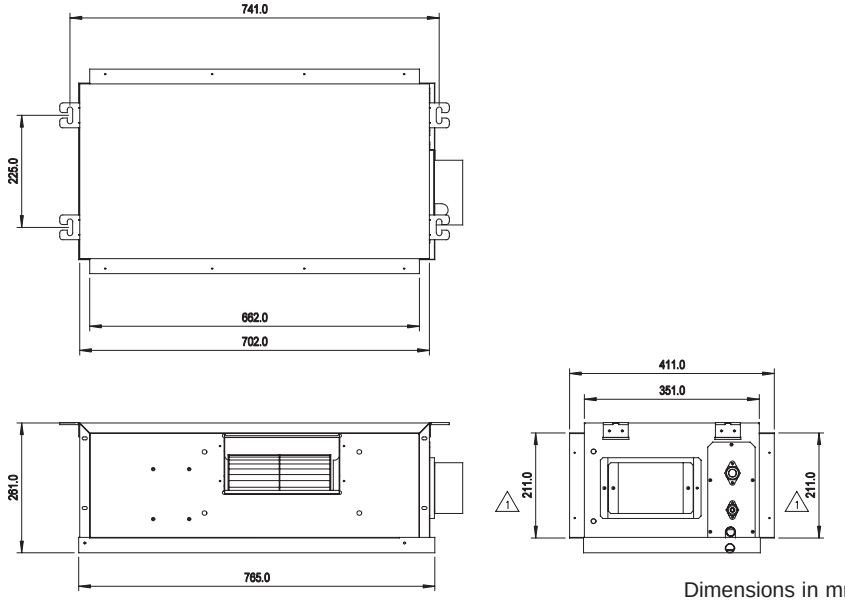
Model : M5WST 040/050/060AR



Dimensions in mm

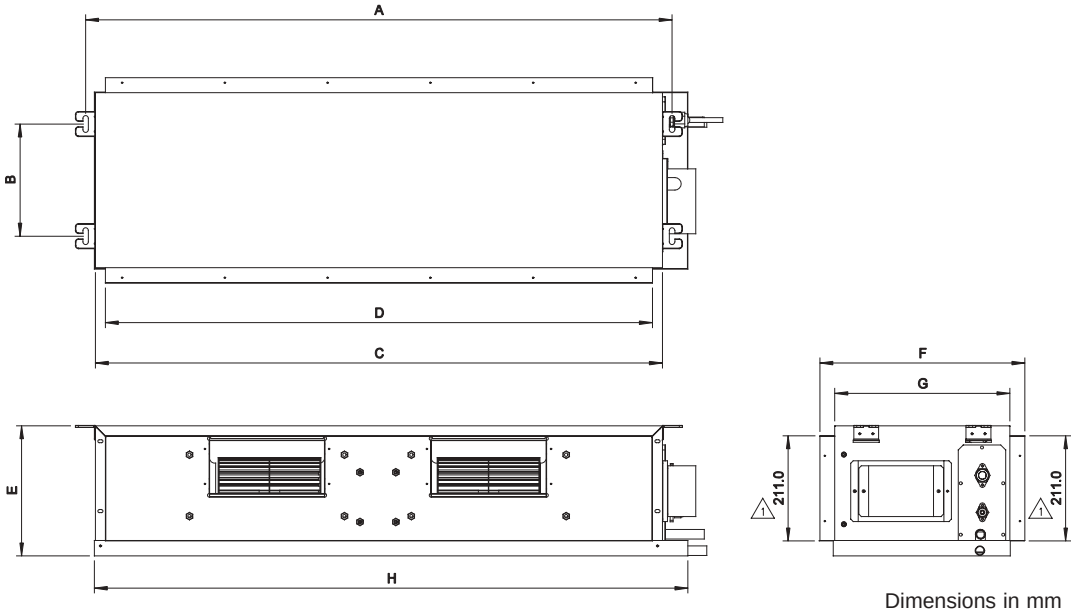
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
M5WST040AR	920.0	151.0	692.0	77.0	511.0	549.5	1013.8	440.0	450.0	130.0	61.5	102.0	100.0	80.0	75.0
M5WST050/060AR	920.0	162.0	692.0	76.0	610.0	648.5	1014.6	504.0	550.0	130.0	61.5	107.0	100.0	80.0	75.0

Indoor Unit
Ceiling Concealed
Model : M5CCWS 010CR



Dimensions in mm

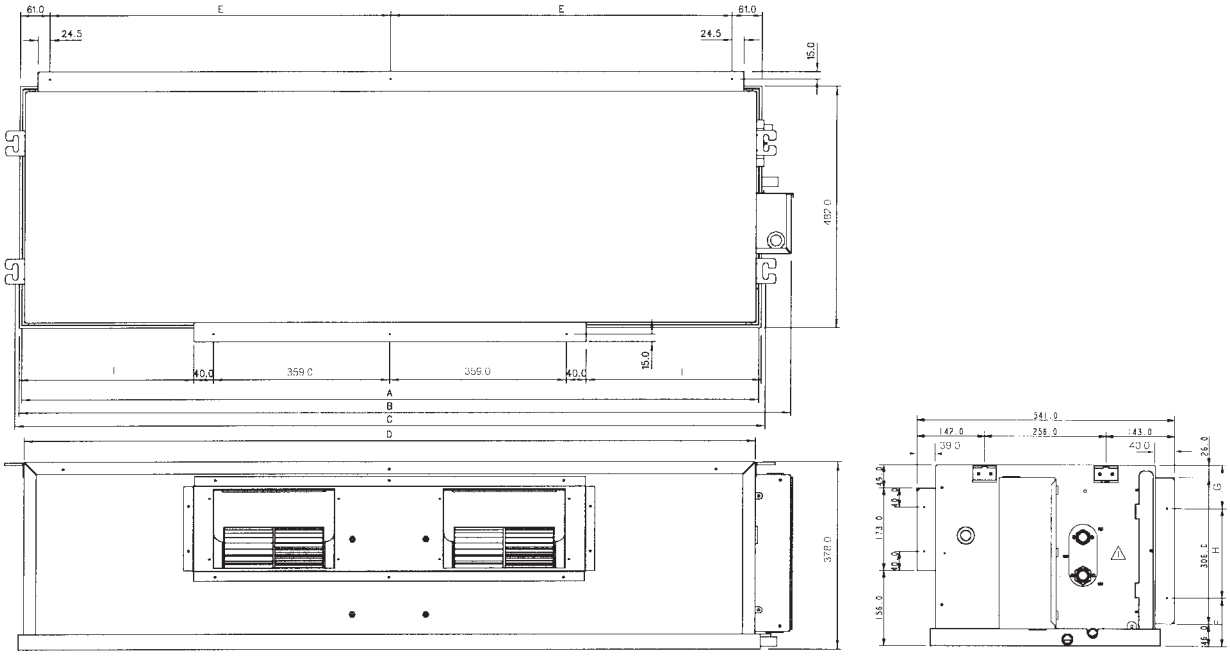
MODEL: M5CCWS 015/020/025CR



Dimensions in mm

MODEL	A	B	C	D	E	F	G	H
M5CCWS015CR	881.0	225.0	842.0	802.0	261.0	411.0	351.0	905.0
M5CCWS020CR	1041.0	225.0	1002.0	962.0	261.0	411.0	351.0	1065.0
M5CCWS025CR	1176.0	225.0	1137.0	1097.0	261.0	411.0	351.0	1200.0

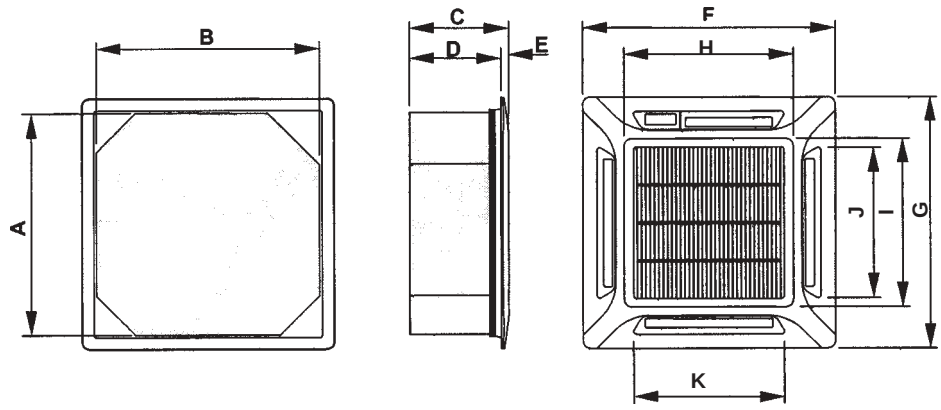
MODEL: M5CCWS 030/040/050/060CR



Dimensions in mm

MODEL	A	B	C	D	E	F	G	H	I
M5CCWS030CR	929.0	999.0	956.0	917.0	408.5	105.0	85.5	187.5	70.5
M5CCWS040CR	1045.0	1115.0	1072.00	1033.0	466.5	105.0	85.5	187.5	128.5
M5CCWS050CR	1299.0	1369.0	1326.0	1287.0	593.5	105.0	90.5	182.5	255.5
M5CCWS060CR	1499.0	1569.0	1526.0	1487.0	693.5	100.0	90.5	187.5	355.5

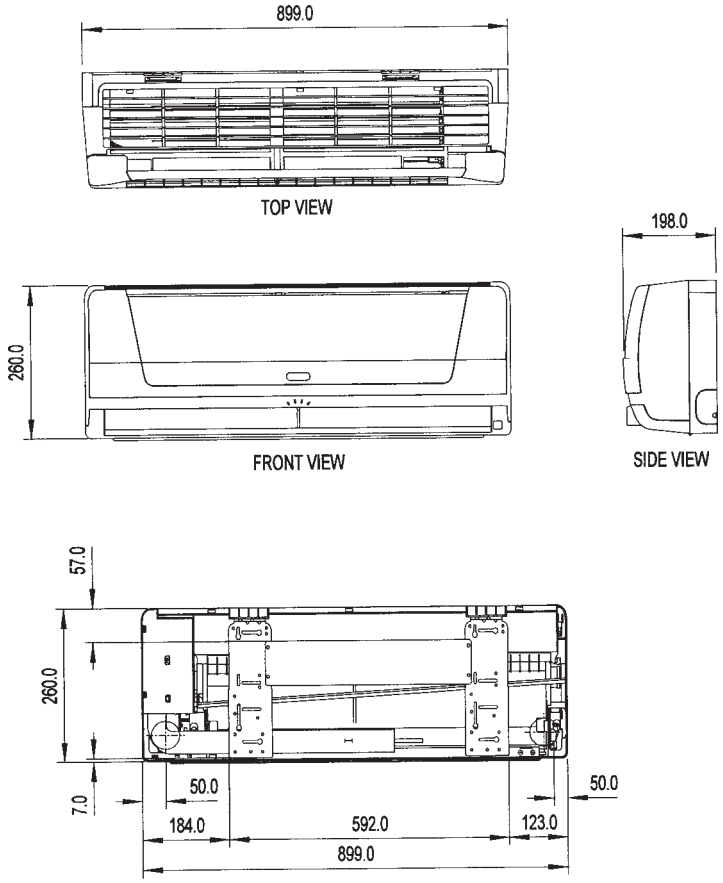
Ceiling Cassette
M5CK WS 020 / 025 / 030 / 040 / 050AR
M5CKWS 010 / 015 / 020CR



Dimensions in mm

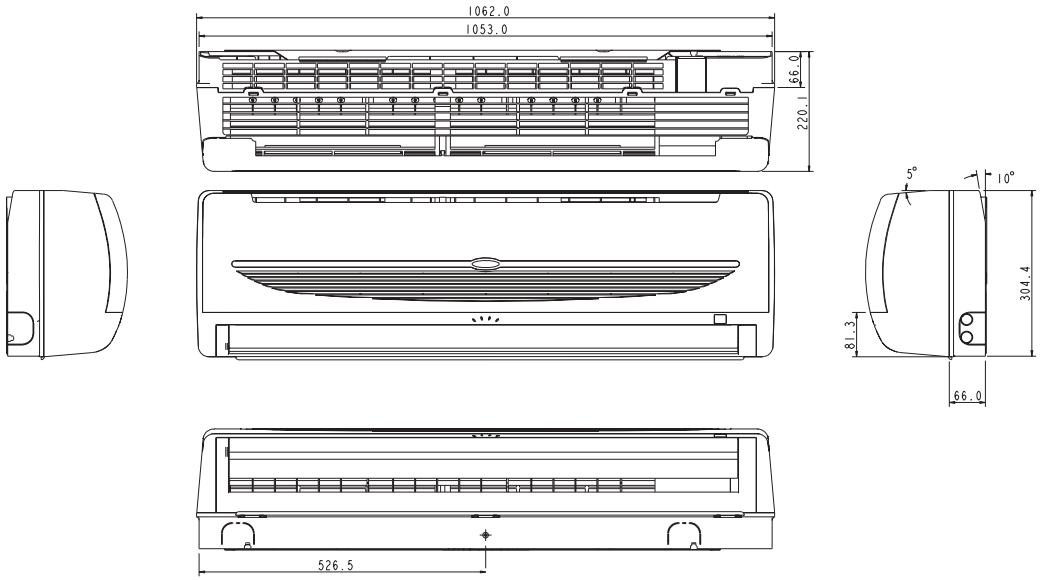
MODEL	A	B	C	D	E	F	G	H	I	J	K
M5CKWS-AR	820	820	378	350	28	930	930	626	626	555	555
M5CKWS-CR	570	570	295	275	20	640	640	408	408	364	364

Wall Mounted
Model : M5WMWS 010/ 015GR



Dimensions in mm

Model : M5WMWS 020/ 025GR



Dimensions in mm

Electrical Data

Electrical Data - Heat pump (R410A)

MODEL	INDOOR UNIT		M5CCWS010CR	M5CCWS010CR
	OUTDOOR UNIT		M5WSS007AR	M5WSS010AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	65	
	RATED RUNNING CURRENT	A	0.29	
	MOTOR OUTPUT	W	30	
	POLES		4	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	μF	20.0	30.0
	RATED INPUT POWER (COOLING)	W	502	642
	RATED INPUT POWER (HEATING)	W	512	662
	RATED RUNNING CURRENT (COOLING)	A	2.3	2.8
	RATED RUNNING CURRENT (HEATING)	A	2.3	2.9
	LOCKED ROTOR AMP.	A	11.3	15.8

MODEL	INDOOR UNIT		M5CCWS015CR	M5CCWS020CR
	OUTDOOR UNIT		M5WSS015AR	M5WSS016AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	96	135
	RATED RUNNING CURRENT	A	0.42	0.60
	MOTOR OUTPUT	W	50	80
	POLES		4	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	μF	25.0	30.0
	RATED INPUT POWER (COOLING)	W	916	980
	RATED INPUT POWER (HEATING)	W	906	940
	RATED RUNNING CURRENT (COOLING)	A	4.4	
	RATED RUNNING CURRENT (HEATING)	A	4.3	
	LOCKED ROTOR AMP.	A	20.2	23.1

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Electrical Data - Heat pump (R410A)

MODEL	INDOOR UNIT		M5CCWS020CR	M5CCWS025CR
	OUTDOOR UNIT		M5WSS020AR	M5WSS025AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	135	152
	RATED RUNNING CURRENT	A	0.60	0.67
	MOTOR OUTPUT	W	80	100
	POLES		4	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	µF	50.0	
	RATED INPUT POWER (COOLING)	W	1370	1444
	RATED INPUT POWER (HEATING)	W	1520	1594
	RATED RUNNING CURRENT (COOLING)	A	6.1	6.5
	RATED RUNNING CURRENT (HEATING)	A	6.8	7.2
	LOCKED ROTOR AMP.	A	26.0	32.3

MODEL	INDOOR UNIT		M5CCWS030CR	M5CCWS040CR
	OUTDOOR UNIT		M5WSS030AR	M5WSS040AR
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	380 - 415 / 3/8
	RATED INPUT POWER	W	355	448
	RATED RUNNING CURRENT	A	1.57	1.98
	MOTOR OUTPUT	W	320	400
	POLES		4	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	380 - 415 / 3/8
	CAPACITOR	µF	45.0	-
	RATED INPUT POWER (COOLING)	W	1967	2485
	RATED INPUT POWER (HEATING)	W	2047	2475
	RATED RUNNING CURRENT (COOLING)	A	9.8	4.8
	RATED RUNNING CURRENT (HEATING)	A	10.0	4.7
	LOCKED ROTOR AMP.	A	63.0	43.0

MODEL	INDOOR UNIT		M5CCWS050CR	M5CCWS060CR
	OUTDOOR UNIT		M5WSS050AR	M5WSS060AR
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3/8	
	RATED INPUT POWER	W	510	562
	RATED RUNNING CURRENT	A	2.26	2.47
	MOTOR OUTPUT	W	480	600
	POLES		4	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3/8	
	CAPACITOR	µF	-	
	RATED INPUT POWER (COOLING)	W	3101	3629
	RATED INPUT POWER (HEATING)	W	3041	3329
	RATED RUNNING CURRENT (COOLING)	A	5.8	6.9
	RATED RUNNING CURRENT (HEATING)	A	5.7	6.6
	LOCKED ROTOR AMP.	A	58.0	67.0

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Electrical Data - Heat pump (R410A)

MODEL	INDOOR UNIT		M5CCWS040CR	M5CCWS050CR
	OUTDOOR UNIT		M5WST040AR	M5WST050AR
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	448	510
	RATED RUNNING CURRENT	A	1.98	2.26
	MOTOR OUTPUT	W	400	480
	POLES		4	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR COMP1/COMP2	µF	50 / 50	60 / 60
	RATED INPUT POWER (COOLING)	W	2955	3990
	RATED INPUT POWER (HEATING)	W	3165	3640
	RATED RUNNING CURRENT (COOLING)	A	13.2	17.5
	RATED RUNNING CURRENT (HEATING)	A	14.2	16.0
	LOCKED ROTOR AMP. COMP1/COMP2	A	35 / 35	53 / 53

MODEL	INDOOR UNIT		M5CCWS060CR
	OUTDOOR UNIT		M5WST060AR
INDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	562
	RATED RUNNING CURRENT	A	2.47
	MOTOR OUTPUT	W	600
	POLES		4
COMPRESSOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50
	CAPACITOR COMP1/COMP2	µF	60 / 45
	RATED INPUT POWER (COOLING)	W	4129
	RATED INPUT POWER (HEATING)	W	4029
	RATED RUNNING CURRENT (COOLING)	A	18.9
	RATED RUNNING CURRENT (HEATING)	A	18.6
	LOCKED ROTOR AMP. COMP1/COMP2	A	53 / 65

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Electrical Data - Heat pump (R410A)

MODEL	INDOOR UNIT		M5CKWS020AR	
	OUTDOOR UNIT		M5WSS016AR	M5WSS020AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	122	
	RATED RUNNING CURRENT	A	0.53	
	MOTOR OUTPUT	W	35	
	POLES		6	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	µF	30.0	50.0
	RATED INPUT POWER (COOLING)	W	980	1370
	RATED INPUT POWER (HEATING)	W	940	1520
	RATED RUNNING CURRENT (COOLING)	A	4.4	6.1
	RATED RUNNING CURRENT (HEATING)	A	4.3	6.8
	LOCKED ROTOR AMP.	A	23.1	26.0

MODEL	INDOOR UNIT		M5CKWS025AR	M5CKWS030AR
	OUTDOOR UNIT		M5WSS025AR	M5WSS030AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	138	153
	RATED RUNNING CURRENT	A	0.61	0.67
	MOTOR OUTPUT	W	45	60
	POLES		6	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	µF	50.0	45.0
	RATED INPUT POWER (COOLING)	W	1444	1967
	RATED INPUT POWER (HEATING)	W	1594	2047
	RATED RUNNING CURRENT (COOLING)	A	6.5	9.8
	RATED RUNNING CURRENT (HEATING)	A	7.2	10.0
	LOCKED ROTOR AMP.	A	32.3	63.0

MODEL	INDOOR UNIT		M5CKWS040AR	M5CKWS050AR
	OUTDOOR UNIT		M5WSS040AR	M5WSS050AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	RATED INPUT POWER	W	184	232
	RATED RUNNING CURRENT	A	0.80	1.02
	MOTOR OUTPUT	W	83	120
	POLES		6	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR	µF	-	
	RATED INPUT POWER (COOLING)	W	2485	3101
	RATED INPUT POWER (HEATING)	W	2475	3041
	RATED RUNNING CURRENT (COOLING)	A	4.8	5.8
	RATED RUNNING CURRENT (HEATING)	A	4.7	5.7
	LOCKED ROTOR AMP.	A	43.0	58.0

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Electrical Data - Heat pump (R410A)

MODEL	INDOOR UNIT		M5CKWS010CR	
	OUTDOOR UNIT		M5WSS007AR	M5WSS010AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	56	
	RATED RUNNING CURRENT	A	0.24	
	MOTOR OUTPUT	W	16	
	POLES		6	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	μF	20.0	30.0
	RATED INPUT POWER (COOLING)	W	502	642
	RATED INPUT POWER (HEATING)	W	512	662
	RATED RUNNING CURRENT (COOLING)	A	2.3	2.8
	RATED RUNNING CURRENT (HEATING)	A	2.3	2.9
	LOCKED ROTOR AMP.	A	11.3	15.8

MODEL	INDOOR UNIT		M5CKWS015CR	M5CKWS020CR
	OUTDOOR UNIT		M5WSS015AR	M5WSS016AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	63	74
	RATED RUNNING CURRENT	A	0.28	0.31
	MOTOR OUTPUT	W	18	22
	POLES		6	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	μF	25.0	30.0
	RATED INPUT POWER (COOLING)	W	916	980
	RATED INPUT POWER (HEATING)	W	906	940
	RATED RUNNING CURRENT (COOLING)	A	4.4	
	RATED RUNNING CURRENT (HEATING)	A	4.3	
	LOCKED ROTOR AMP.	A	20.2	23.1

MODEL	INDOOR UNIT		M5CKWS020CR
	OUTDOOR UNIT		M5WSS020AR
INDOOR MOTOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	74
	RATED RUNNING CURRENT	A	0.31
	MOTOR OUTPUT	W	22
	POLES		6
COMPRESSOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	CAPACITOR	μF	50.0
	RATED INPUT POWER (COOLING)	W	1370
	RATED INPUT POWER (HEATING)	W	1520
	RATED RUNNING CURRENT (COOLING)	A	6.1
	RATED RUNNING CURRENT (HEATING)	A	6.8
	LOCKED ROTOR AMP.	A	26.0

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Electrical Data - Heat pump (R410A)

MODEL	INDOOR UNIT		M5WMWS010GR	
	OUTDOOR UNIT		M5WSS007AR	M5WSS010AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	25	
	RATED RUNNING CURRENT	A	0.11	
	MOTOR OUTPUT	W	9	
	POLES		4	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	µF	20.0	30.0
	RATED INPUT POWER (COOLING)	W	502	642
	RATED INPUT POWER (HEATING)	W	512	662
	RATED RUNNING CURRENT (COOLING)	A	2.3	2.8
	RATED RUNNING CURRENT (HEATING)	A	2.3	2.9
	LOCKED ROTOR AMP.	A	11.3	15.8

MODEL	INDOOR UNIT		M5WMWS015GR	M5WMWS020GR
	OUTDOOR UNIT		M5WSS015AR	M5WSS016AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	29	50
	RATED RUNNING CURRENT	A	0.13	0.22
	MOTOR OUTPUT	W	13	20
	POLES		4	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	µF	25.0	30.0
	RATED INPUT POWER (COOLING)	W	916	980
	RATED INPUT POWER (HEATING)	W	906	940
	RATED RUNNING CURRENT (COOLING)	A	4.4	
	RATED RUNNING CURRENT (HEATING)	A	4.3	
	LOCKED ROTOR AMP.	A	20.2	23.1

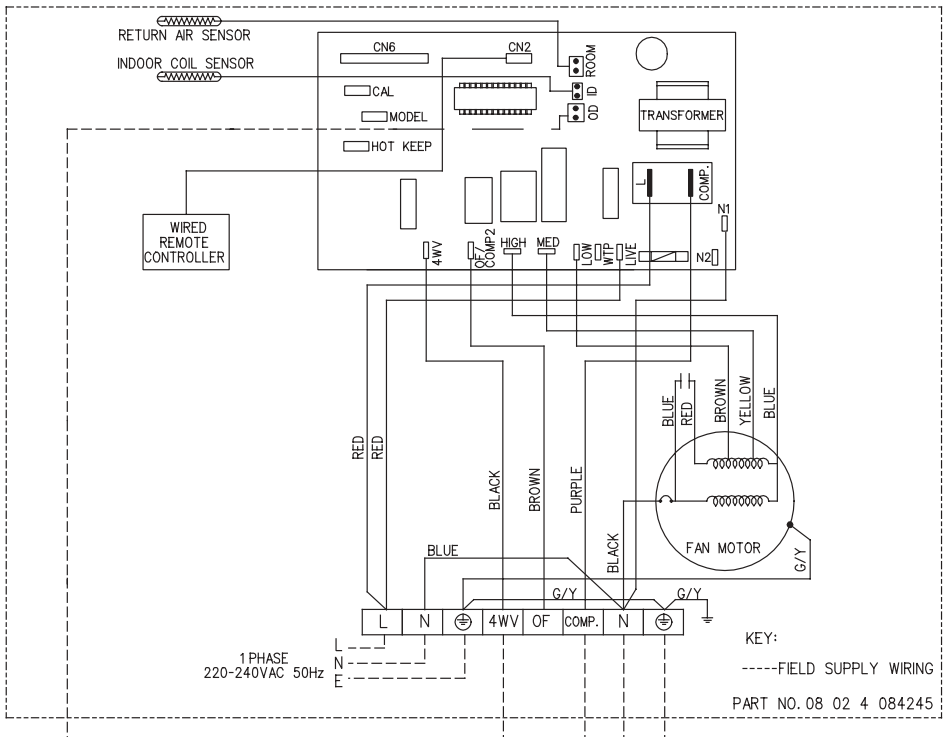
MODEL	INDOOR UNIT		M5WMWS020GR	M5WMWS025GR
	OUTDOOR UNIT		M5WSS020AR	M5WSS025AR
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220-240/1/50	
	RATED INPUT POWER	W	50	69
	RATED RUNNING CURRENT	A	0.22	0.29
	MOTOR OUTPUT	W	20	25
	POLES		4	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220-240/1/50	
	CAPACITOR	µF	50.0	
	RATED INPUT POWER (COOLING)	W	1370	1444
	RATED INPUT POWER (HEATING)	W	1520	1594
	RATED RUNNING CURRENT (COOLING)	A	6.1	6.5
	RATED RUNNING CURRENT (HEATING)	A	6.8	7.2
	LOCKED ROTOR AMP.	A	26.0	32.3

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 13256-1.

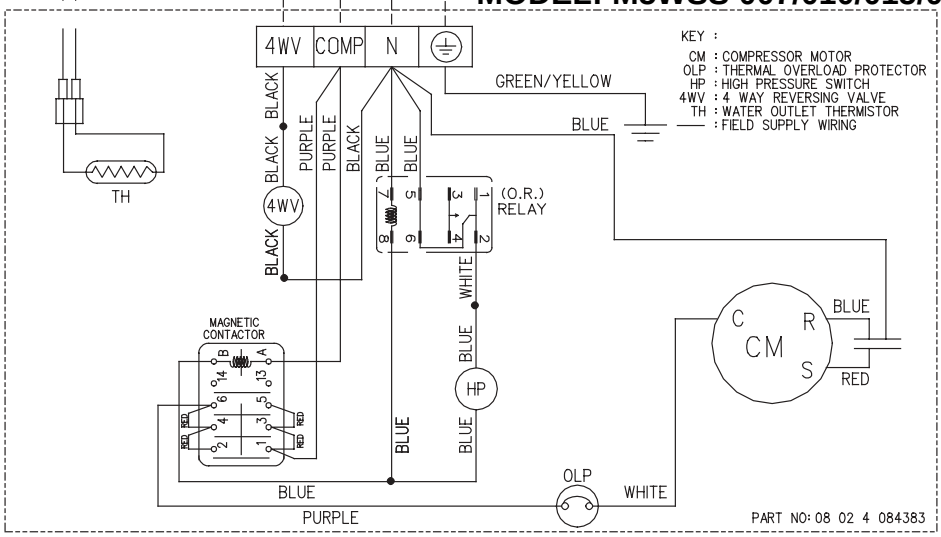
Wiring Diagrams

Ceiling Concealed
Indoor Unit

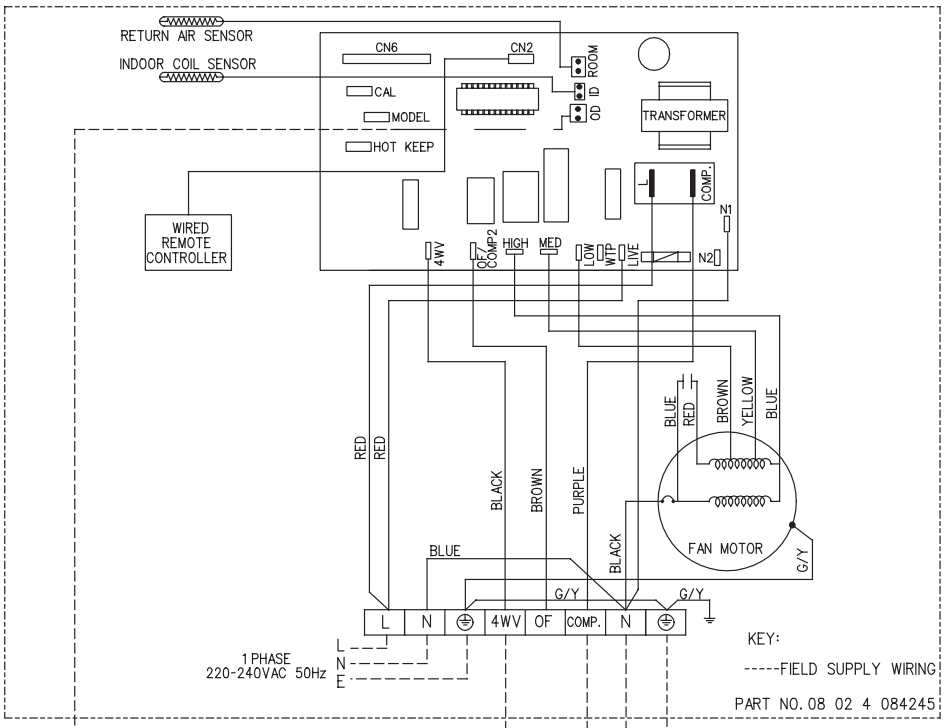
Model : M5CCWS 010/015/020CR



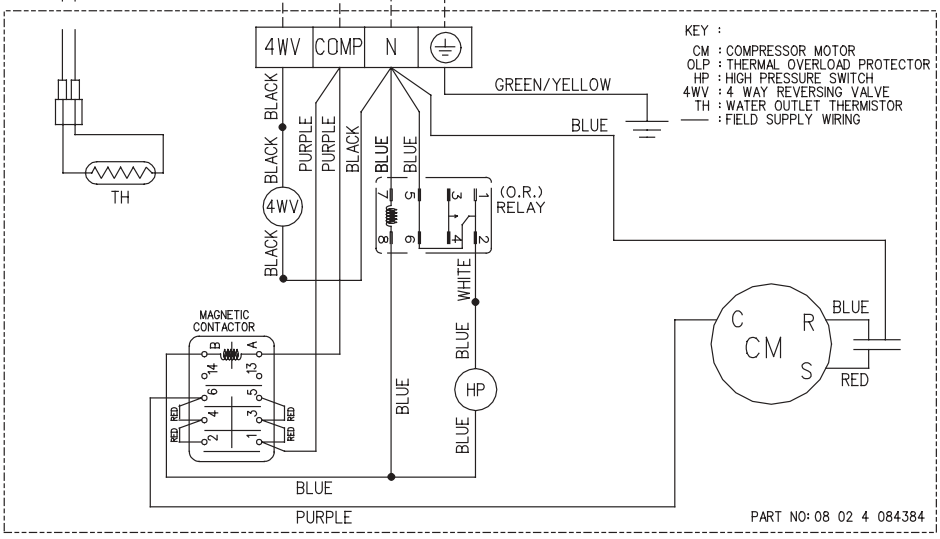
Outdoor Unit
MODEL: M5WSS 007/010/015/016AR



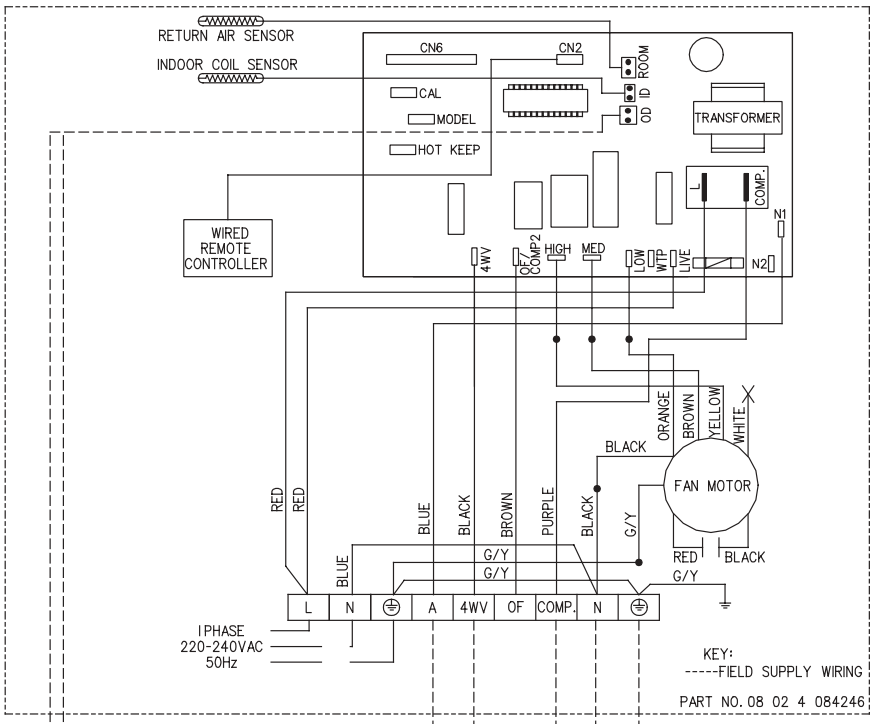
Indoor Unit
Model : M5CCWS 020/025CR



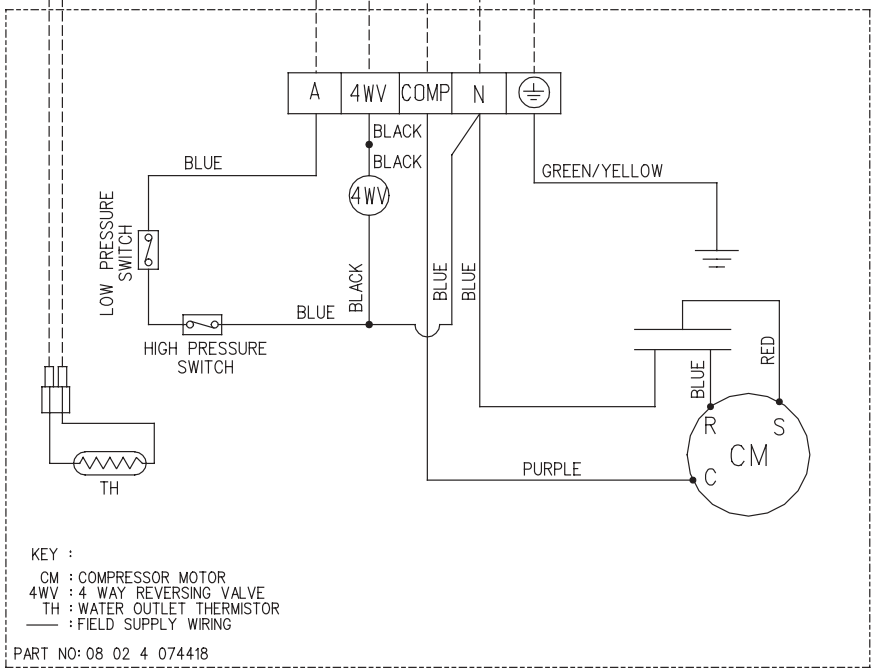
Outdoor Unit
Model : M5WSS020/ 025AR



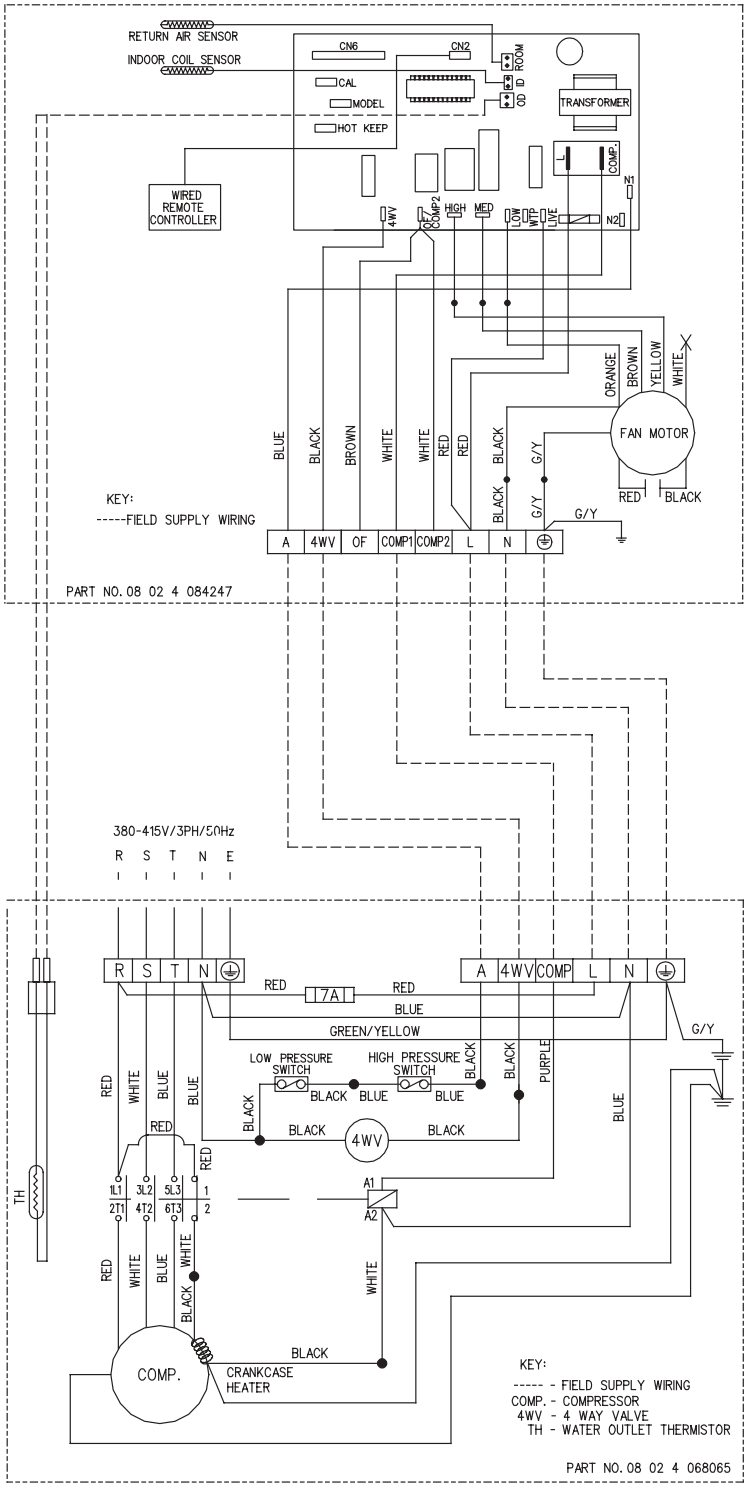
Indoor Unit
Model : M5CCWS 030CR



Outdoor Unit
Model : M5WSS 030AR

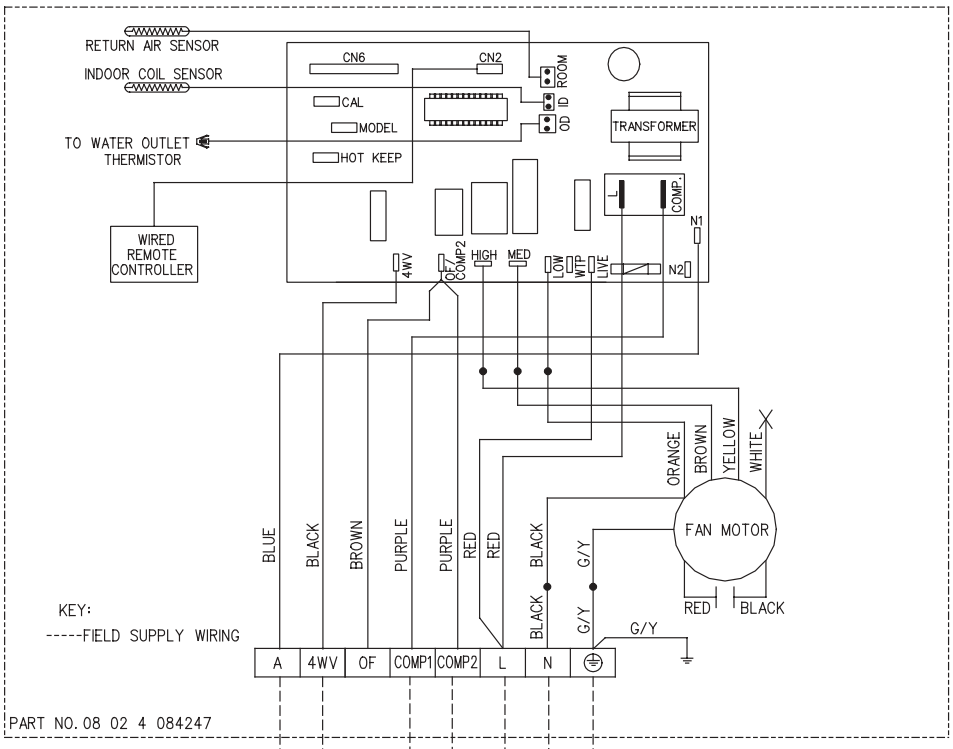


Indoor Unit
Model : M5CCWS 040/ 050 / 060CR

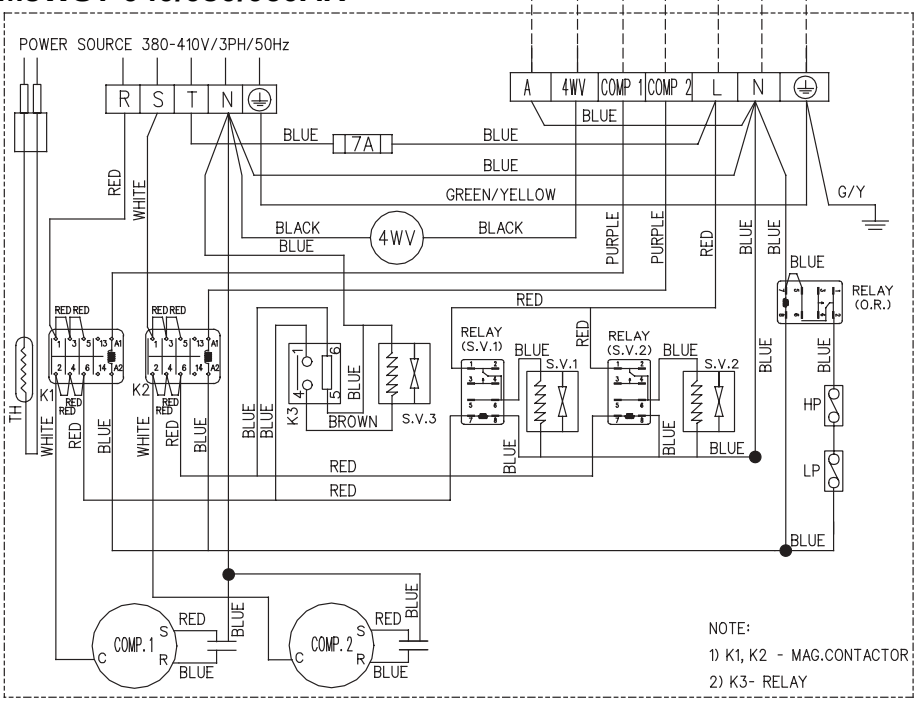


Outdoor Unit
Model : M5WSS 040/ 050/ 060AR

Indoor Unit
Model: M5CCWS 040/050/060CR

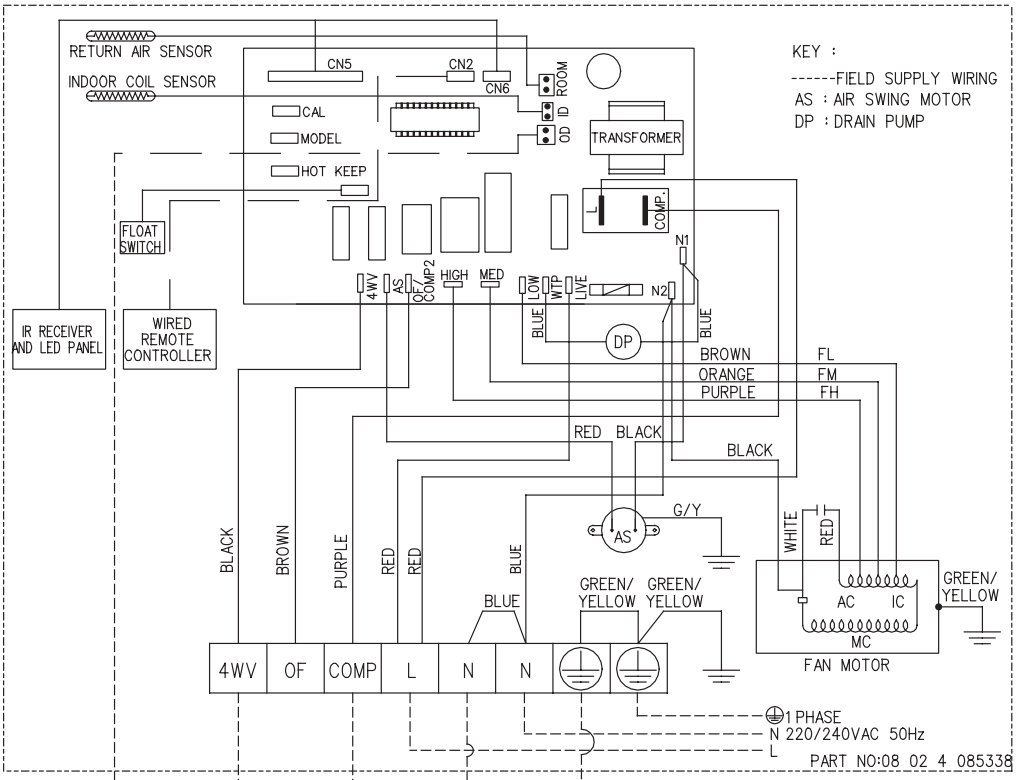


Outdoor Unit
Model: M5WST 040/050/060AR

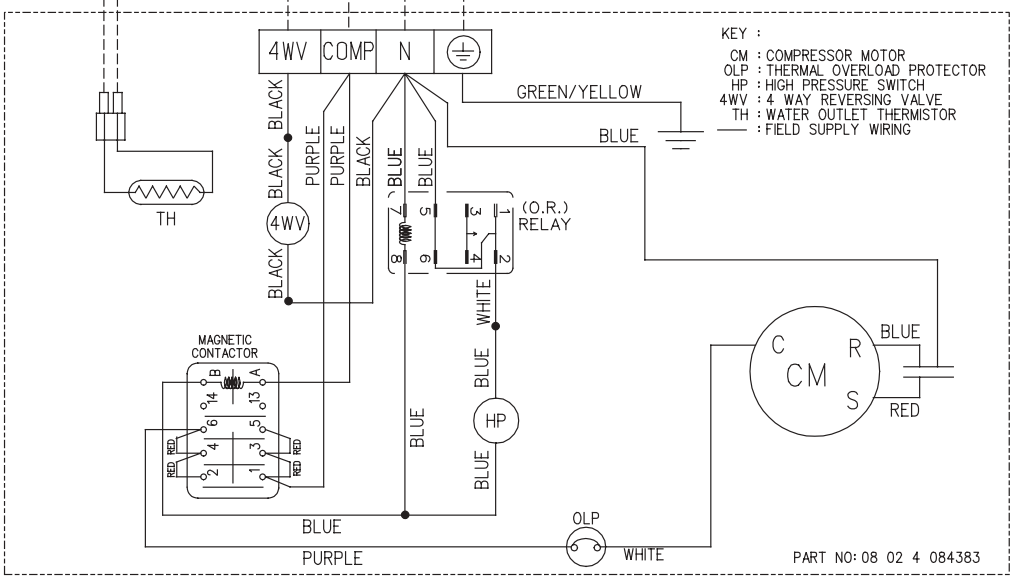


Ceiling Cassette

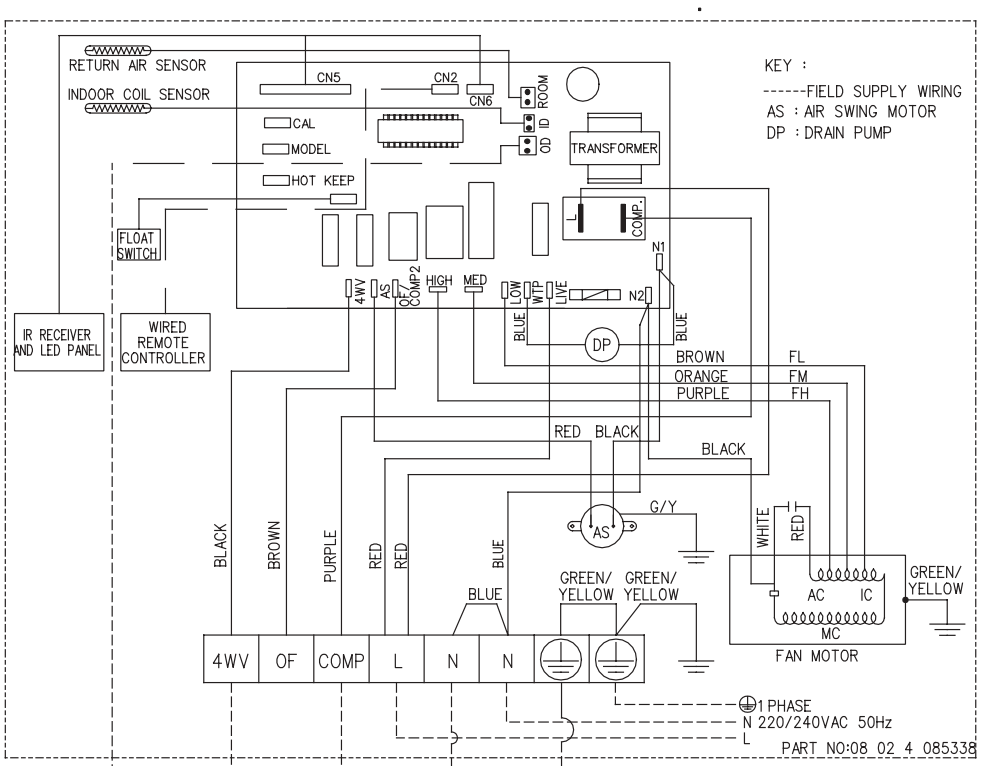
Indoor Unit
Model : M5CKWS 020AR



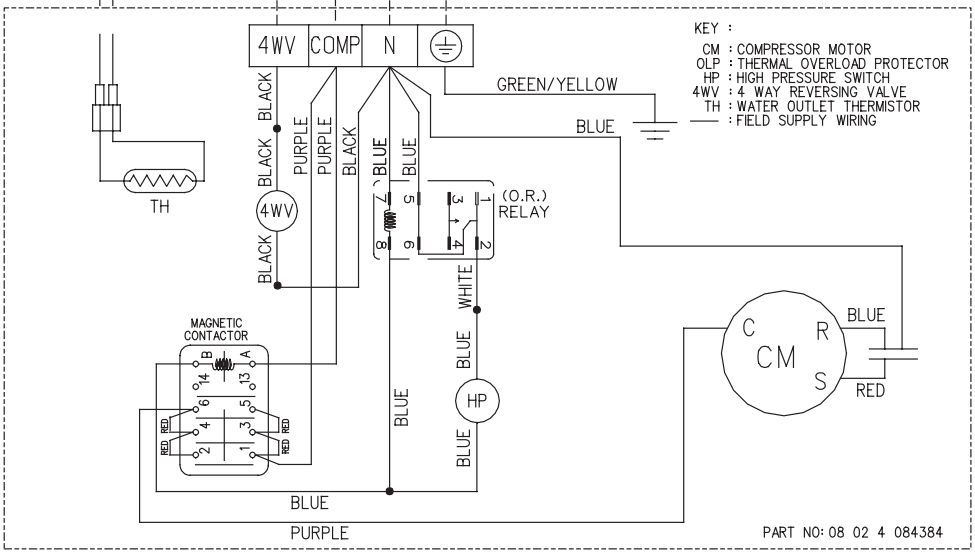
Outdoor Unit
Model : M5WSS016/ 020AR



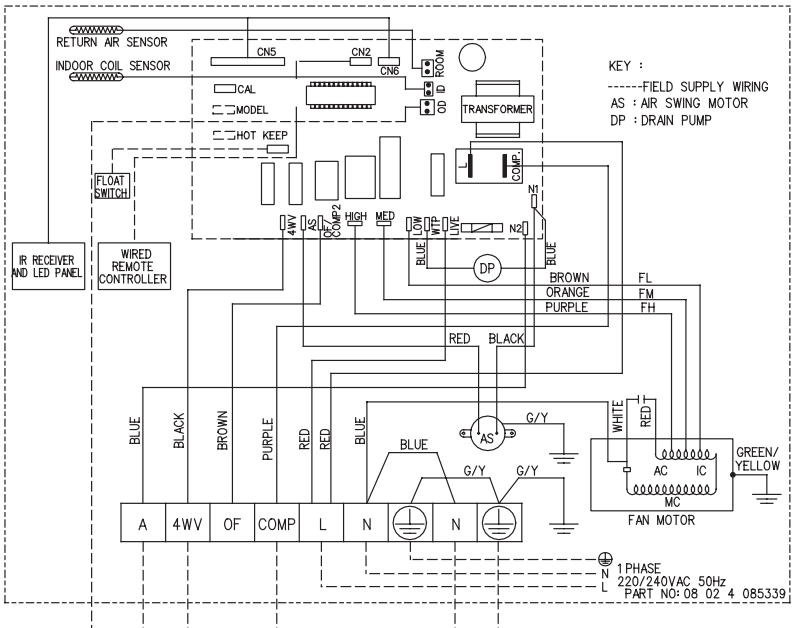
Indoor Unit
Model : M5CKWS020/ 025AR



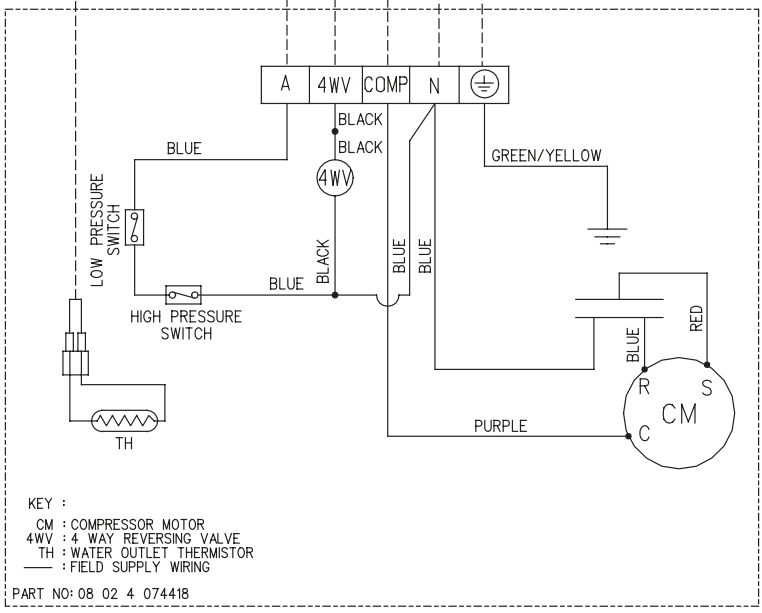
Outdoor Unit
Model : M5WSS020/ 025AR



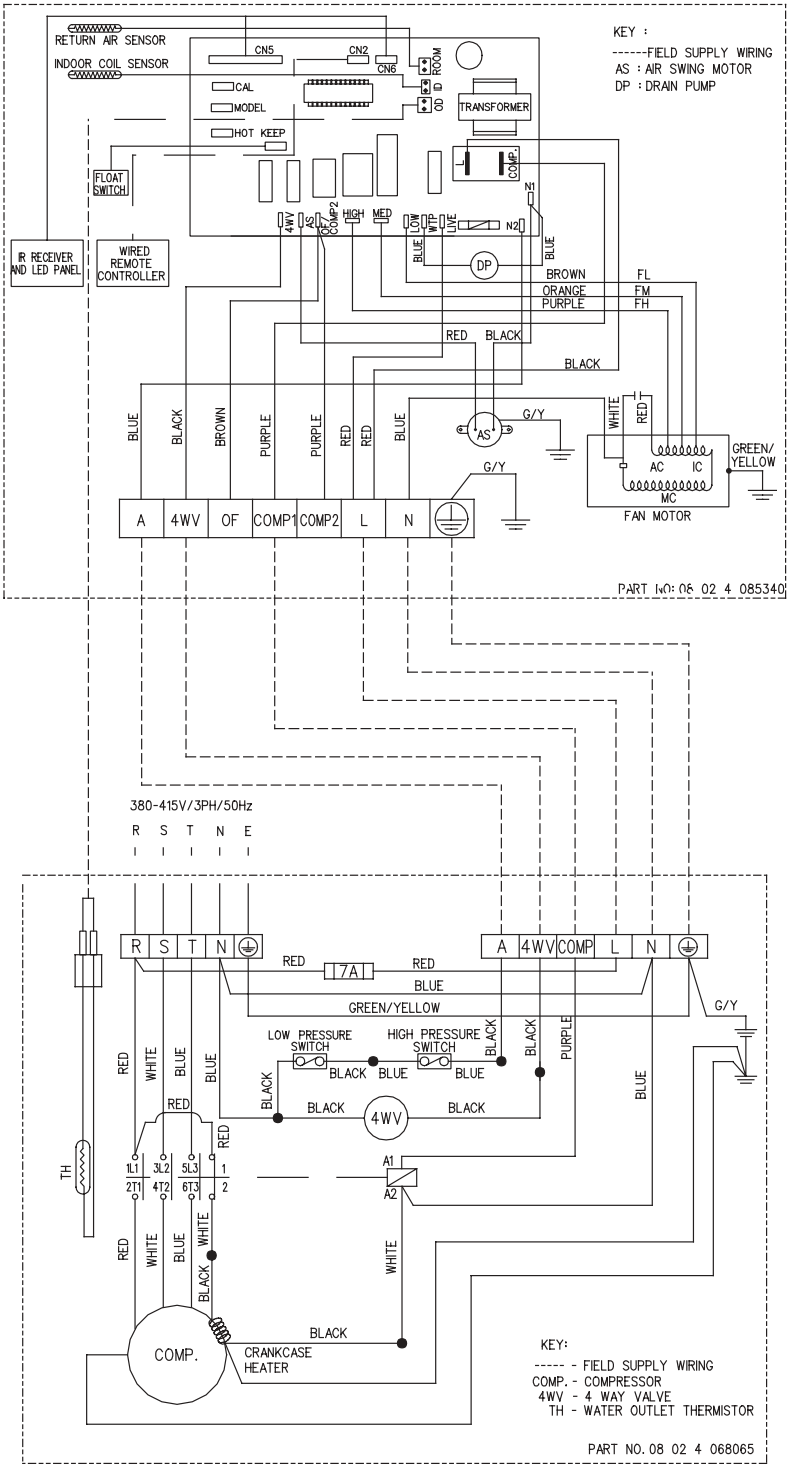
Indoor Unit
Model : M5CKWS 030AR



Outdoor Unit
Model : M5WSS 030AR

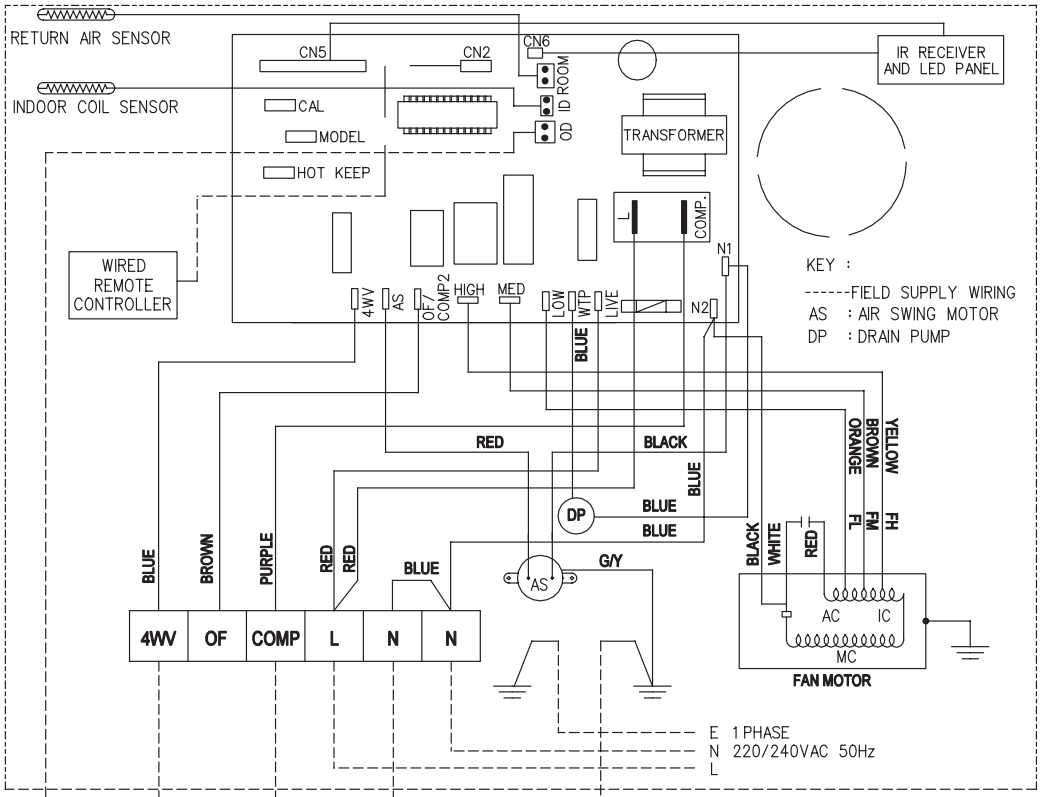


Indoor Unit
MODEL: M5CKWS 040/050AR

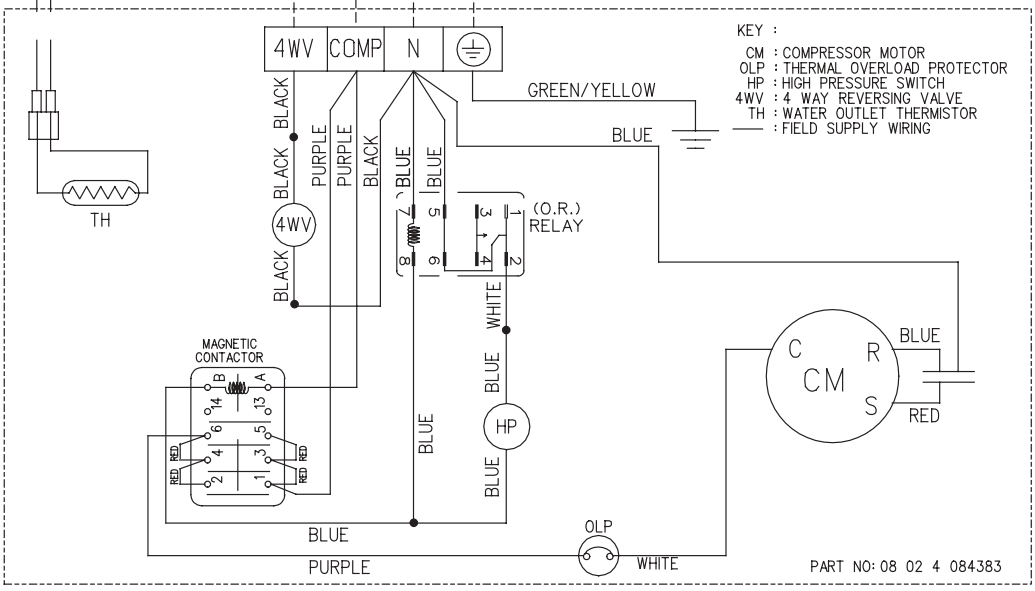


Outdoor Unit
Model : M5WSS 040/050AR

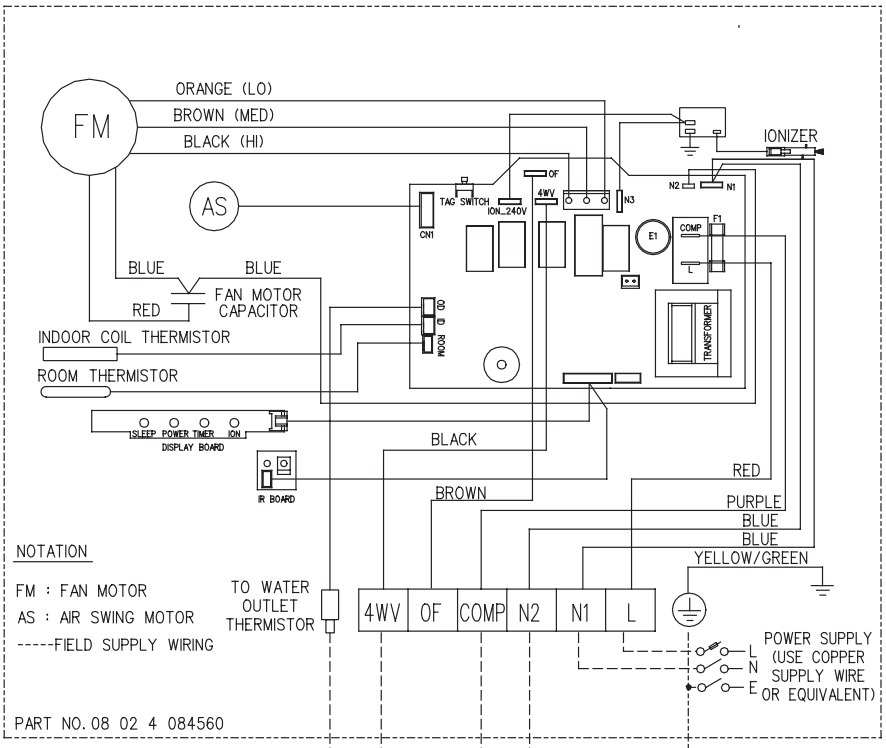
Indoor Unit
Model : M5CKWS 010/ 015/ 020CR



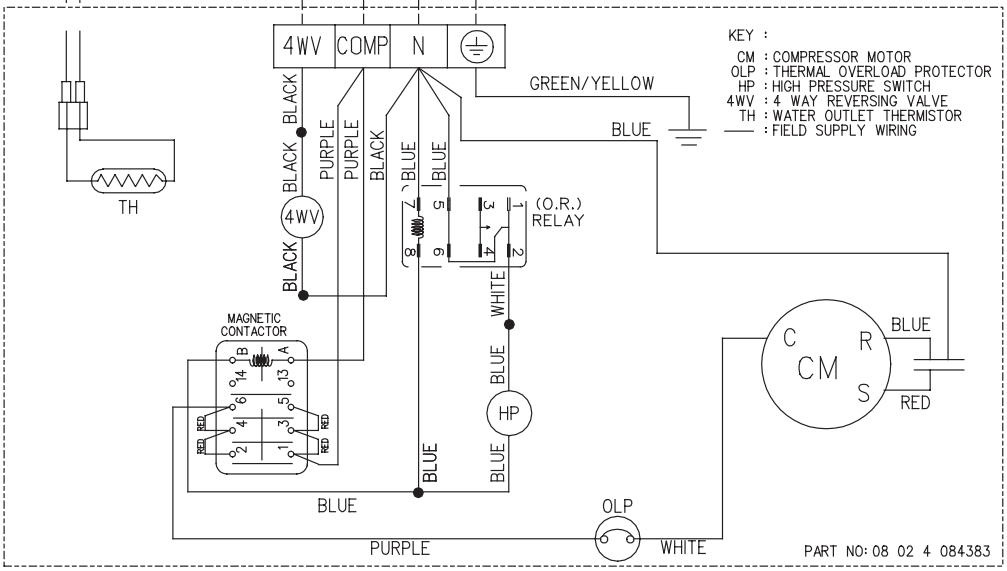
Model : M5WSS 007 / 010 / 015 / 016 / 020AR



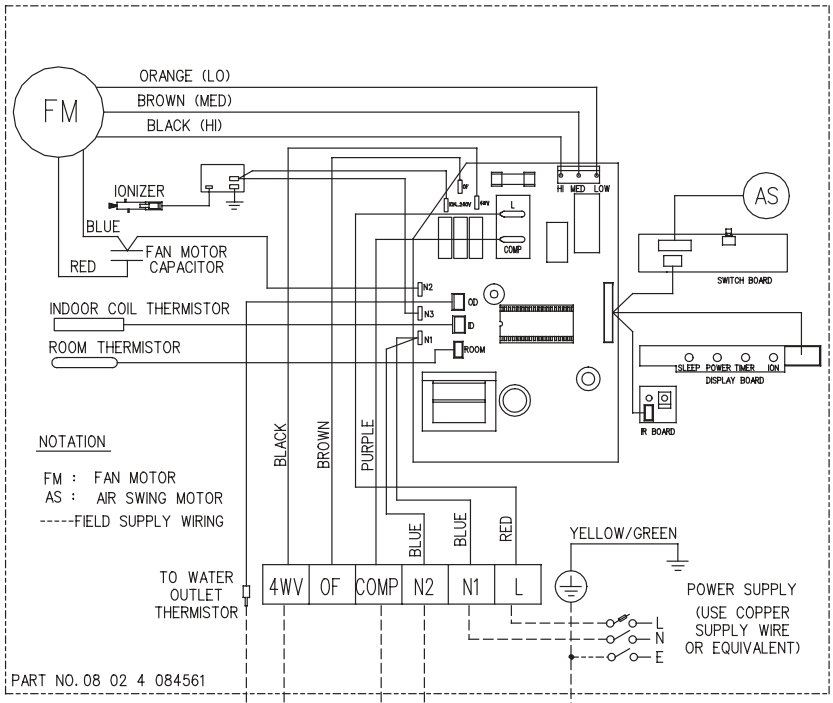
Indoor Unit
Model : M5WMWS010/ 015GR (With Ionizer)



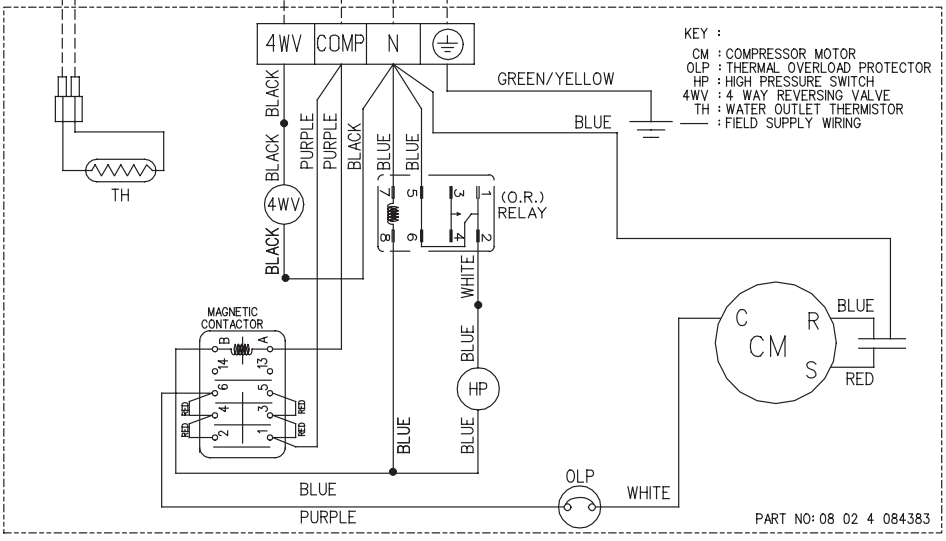
Outdoor Unit
Model : M5WSS 007 / 010 / 015AR



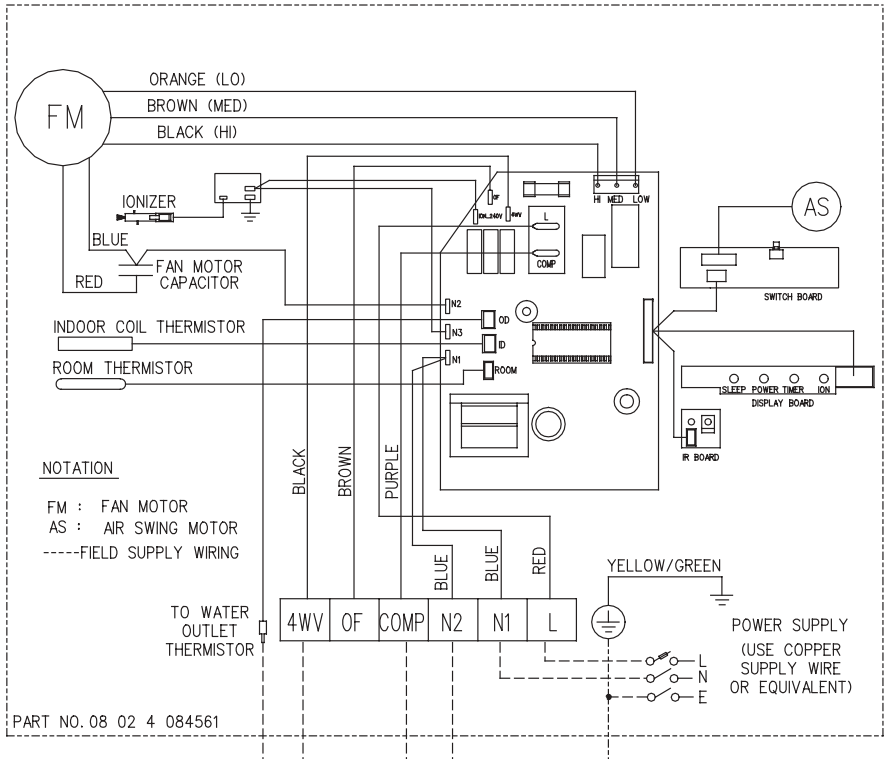
Indoor Unit
Model : M5WMWS 020GR (With Ionizer)



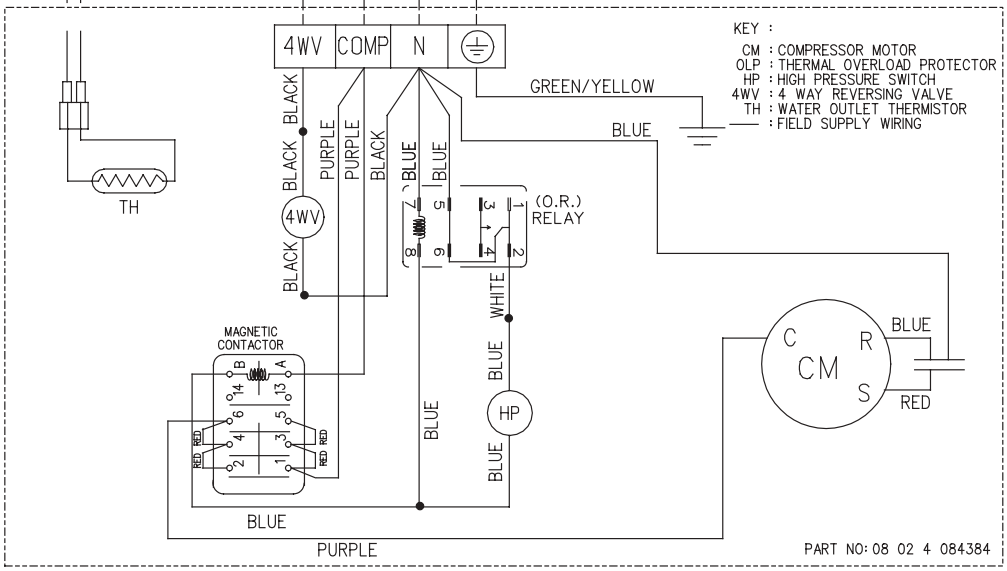
Outdoor Unit
Model : M5WSS 016AR



Indoor Unit
Model: M5WMWS 020/025GR (With Ionizer)



Outdoor Unit
Model : M5WSS 020/025AR



Servicing And Maintenance

Warning

Disconnect from Main Supply before Servicing the air conditioner

The unit is designed to give a long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

Components	Maintenance Procedure	Recommended Schedule
Air Filters	1. Clean with a vacum cleaner, or by tapping lightly and then washing in lukewarm water (below 40°C) with neutral soap. 2. Rinse well to dry before re-installing. 3. Note : Never use petrol, thinner, benzene or any other chemicals	Every 2 weeks. More frequently if required.
Fan Coil Unit (FCU)	1. Clean away dirt or dust on grille or panel by wiping with a soft cloth soaked in lukewarm (or cold) water or neutral detegent solution. 2. Note : Never use petrol, thinner, benzene or any other volatile chemicals, which may cause plastic surface to deform.	Every 2 weeks. More frequently if required.
Condenser Drain Pan & Pipe	1. Check and clean.	Every 3 months
FCU Fan	1. Check for unusual noise.	Every 3 months
FCU Fin Coil	1. Check and remove dirt which are clogged between fins. 2. Check and remove obstacles which hinder air flow in and out of the unit.	Every month. Every month.
Electrical	1. Check voltage, currect and wiring. 2. Check faulty contacts caused by loose connections, foreign matters, etc. 3. Refer to attachment	Every 2 months. Every 2 months.
Compressor	1. No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leak at joints & fittings.	Every 6 months.
Compressor Lubrication	1. Oil is factory charged. Not necessary to add oil if circuit remains sealed.	No maintenance required.
Fan Motors Lubrication	1. All motors pre-lubricated and sealed at factory.	No maintenance required.
Electrical	1. Maintain a log data on measurement of volts, amps, and water temperature difference(heating & cooling) is recommended. A comparison of the data during start-up and periodic data is useful as indicator of general condition of equipment.	Every month / quarterly or annually.

Pre-start Up Maintenance (After Extended Shutdown)

- Inspect thoroughly and clean indoor and outdoor units.
- Clean or replace air filters.
- Clean condensate drain line.
- Clean clogged indoor and outdoor coils.
- Check fan imbalance before operation.
- Tighten all wiring connections and panels.
- Check for refrigerant leakage.

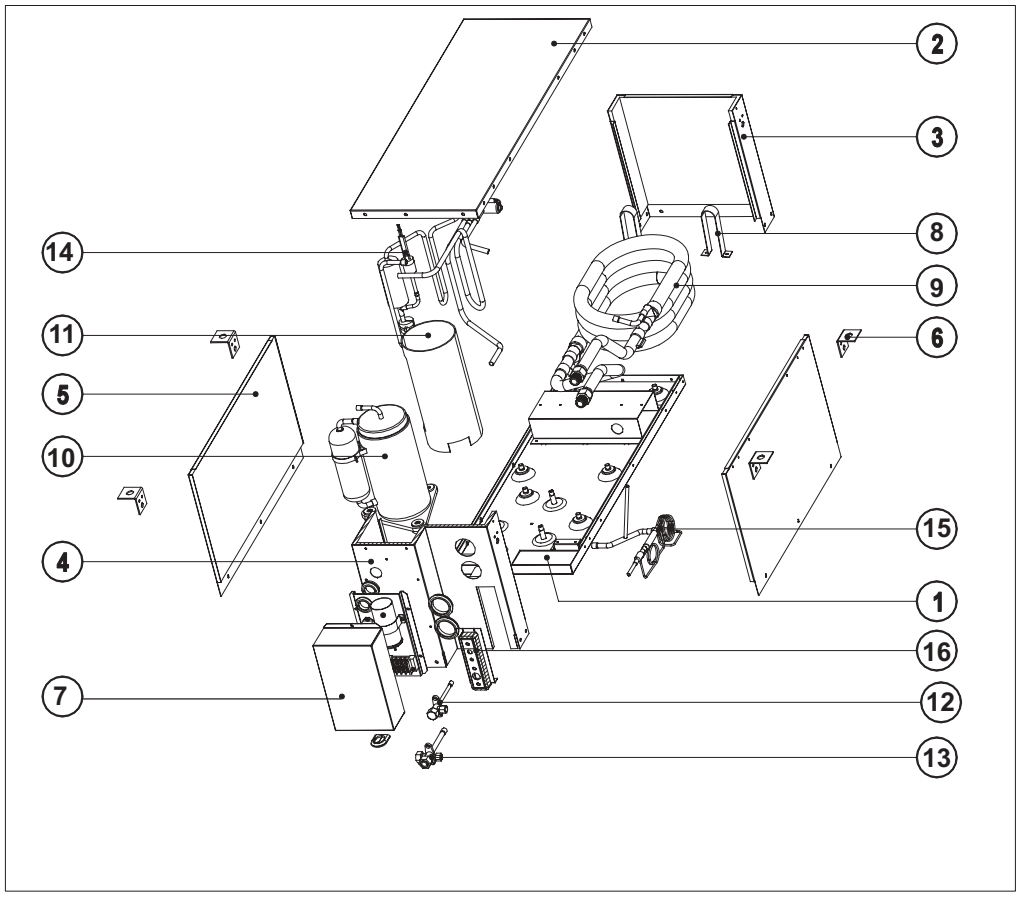
Troubleshooting

When a malfunction of the air conditioner unit is detected, immediately switch off the main power supply before proceeding with the following troubleshooting procedures.
The following are common fault conditions and simple troubleshooting tips. If any other fault conditions which are not listed occur, contact your nearest local dealer. DO NOT attempt to troubleshoot the unit by yourself.

Fault	Cause/ Check Point
Air conditioner cannot start	1. Power supply plug disconnected. 2. Circuit breaker or fuse tripped / blown. 3. Wiring connection 4. If fault persist, contact your installer
Neither fan coil unit and compressor run	1. The fuse may be blown or circuit breaker opened. 2. Check electrical circuit or motor winding for shorts or grounds. Investigate for possible over loading. Replace fuse if necessary. 3. Check wiring connections. Wire may be loosening. Replace or tighten. 4. Control system may be faulty
Compressor does not operate.	1. Check capacitor if available. Replace capacitor if faulty. 2. Check wiring connection. Wire may be loosening. Replace or tighten. 3. The high pressure switch may tripped due to: a) No or insufficient water flows into and leaves heat exchanger. May be clogged. b) Water entering temperature higher than the maximum operating conditions. c) Not enough air flow into fan coil unit. May be due to dirty filter or block by object, cardboard and etc (heating mode). d) Fan coil motor failure (heating mode). e) Unit over-charged. Release some of the refrigerant charge. 4. The compressor internal/external overload protection is opened. If the compressor body is extremely hot, the overload will not reset until it cooled down. 5. The compressor winding may be grounded to the compressor shell. If so, replace the compressor.
Insufficient cooling or heating.	1. Check controller temperature setting. 2. Filter may be clogged. Check and clean the filter. 3. Check capillary tube for possible restriction of refrigerant flow. Replace capillary tube if proven so. 4. The reversing valve may be defective (valve position is not shifted properly), creating a bypass of refrigerant. Check the reversing valve coil connection. 5. Check for restriction of air and water flow. 6. Refrigerant leakage. Check all piping bends and connection for leakage. Repair the leakage area or replace with new piping. 7. Window or door wide open. 8. Unit may be under-sized.
Remote control display light is too dim.	1. Battery flat. Replace the battery. 2. The batteries are not properly positioned
Insufficient water flow through heat exchanger	1. Valves are not opened fully. 2. Circulating water pump is faulty. 3. Water pipes or strainers are clogged.
Noisy operation	1. Check for loose bolts or screws. 2. Make sure rubber isolators are used for installation. 3. Check for water balance to unit for proper water flow rate. 4. Check for tubing touching compressor or other surface. Readjust tubing by bending it slightly. 5. Fan (fan coil unit) knocking / hitting on its housing. 6. May be due to worn compressor bearing.

Exploded View and Parts List

Model : M5WSS 007/010/015AR

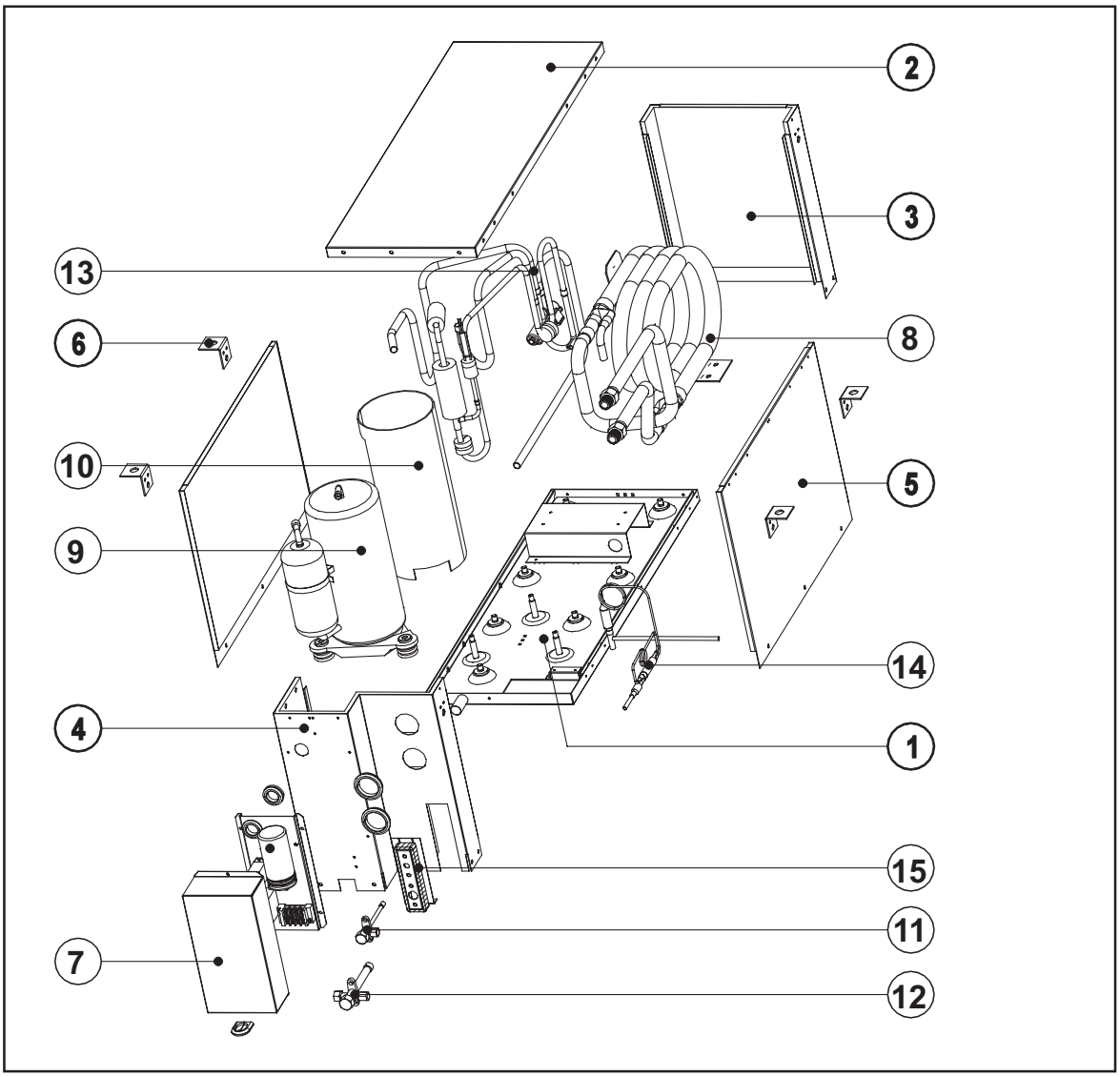


No	Description	Part No	No	Description	Part No
1	Assy., Base Pan		10	Compressor	
	Assy., Panel Base Lower 5WSS07AR	A50014072559		Compressor, 5RS080DBA MATSUSHITA (5WSS07AR)	A04019018036
	Assy., Panel Base Lower 5WSS10/15AR	A50014072562		Compressor, 5PS102DAD MATSUSHITA (5WSS10AR)	A04019018038
	Assy., Panel Base Upper 5WSS07AR	A50014072560		Compressor, 5PS132DAC MATSUSHITA (5WSS15AR)	A04019018040
	Assy., Panel Base Upper 5WSS10/15AR	A50014072563	11	Jacket, Compressor	
2	Panel, Top(5WSS07/10/15/16/20/25AR)	A01014058153		Jacket, Compressor (FELT 8*410*210mm) (5WSS07AR)	A06074060548
3	Assy., Panel Right			Jacket, Compressor 5WSS10/15AR	A06074060549
	Assy., Panel Right 5WSS07AR	A50014072413	12	Assy., Flare Valve 1/4" (5WSS07/10/15AR)	A50059017482
	Assy., Panel Right 5WSS10/15AR	A50014072493	13	Assy., Flare Valve 3/8" (5WSS07/10AR)	A50059017536
4	Assy., Panel Left			Assy., Flare Valve 1/2" R410A (5WSS15AR)	A50059017537
	Assy., Panel Left 5WSS07AR	A50014072417	14	Assy., 4 Way Valve	
	Assy., Panel Left 5WSS10/15AR	A50014072497		Assy., 4 Way Valve (5WSS07AR)	A50024072405
5	Panel, Service			Assy., 4 Way Valve (5WSS10AR)	A50024072484
	Panel, Service 5WSS07AR	A01014072421		Assy., 4 Way Valve (5WSS15AR)	A50024072566
	Panel, Service 5WSS10/15AR	A01014072501	15	Assy., Cap Tube	
6	Bracket, Hanging (5WSS07-60AR)	A01014058923		Assy., Cap Tube (5WSS07AR)	A50024072442
7	Cover, Control Box			Assy., Cap Tube (5WSS07AR)	A50024072504
	Cover, Control Box 5WSS07AR	A01014073995		Assy., Cap Tube (5WSS07AR)	A50024072568
	Cover, Control Box 5WSS10/15/16AR	A01014074008	16	Assy., Valve Plate (Weld Nut)	A50014073987
8	Clamp, Heat Exchanger 5WSS07/10/15AR	A01014058989			
9	Assy., Heat Exchanger				
	Assy., Heat Exchanger 5WSS07AR	A50024072428			
	Assy., Heat Exchanger 5WSS10/15AR	A50024072503			

Parts not in Diagram

No	Description	Part No
1	Capacitor	
	Capacitor, F 20µF 440Vac, HSB50/60 (5WSS	A04024031249
	Capacitor, F 30µF 440Vac (5WSS10AR)	A04024012931
	Capacitor, F 25µF 440Vac (5WSS15AR)	A04024012929
2	Press Switch, 600psi N/C Export Nangtong	A04104061879
3	Tube, Water Inlet	
	Tube, Water Inlet (5WSS07AR)	A02014072404
	Tube, Water Inlet (5WSS10/15AR)	A02014072483
4	Tube, Water Outlet	
	Tube, Water Outlet (5WSS07AR)	A02014072402
	Tube, Water Outlet (5WSS10/15AR)	A02014072481

Model: M5WSS 016AR

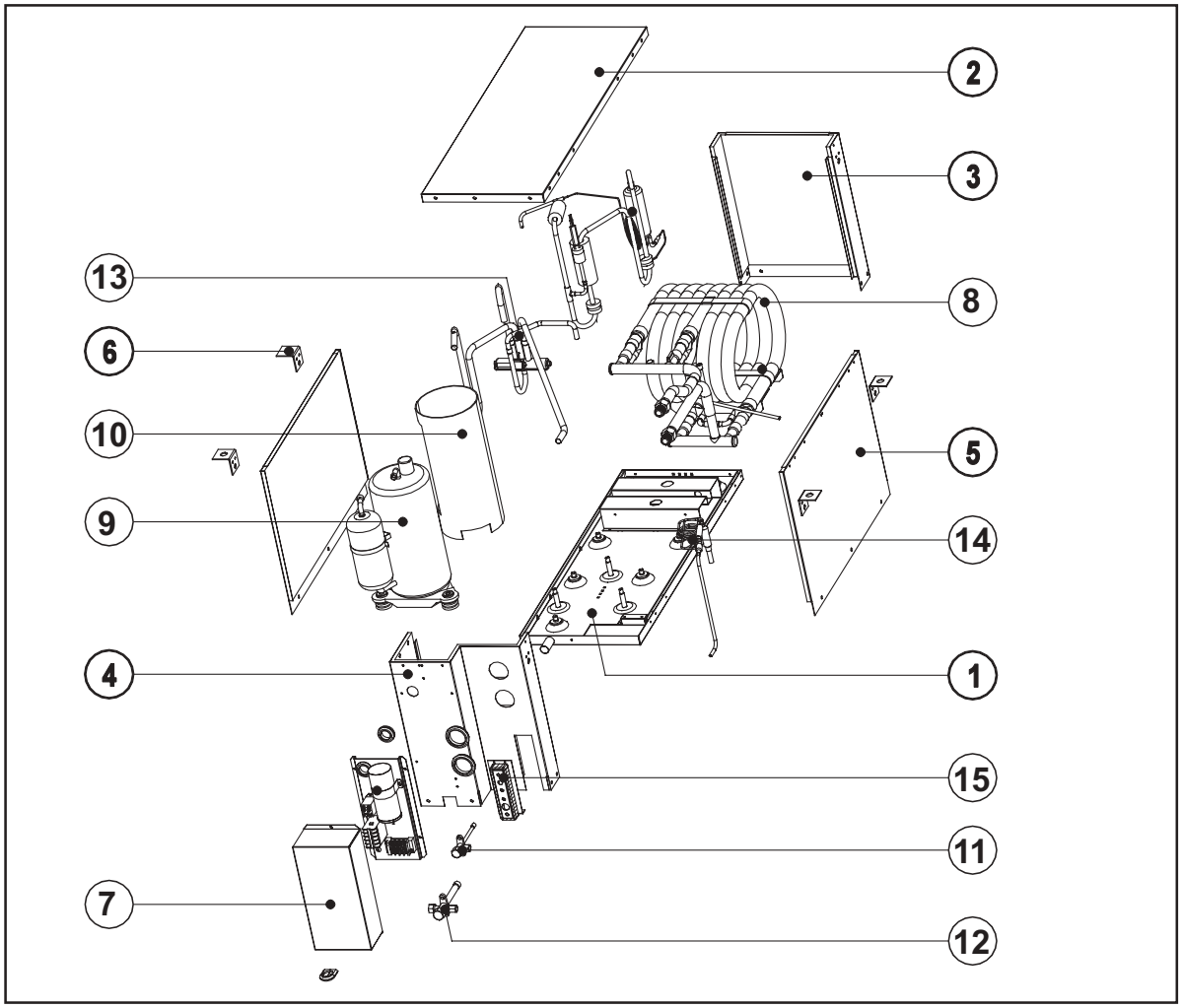


No	Description	Part No	No	Description	Part No
1	Assy., Base Pan		8	Assy., Heat Exchanger 5WSS16AR	A50024072963
	Assy., Panel Base Lower 5WSS16AR	A50014072952	9	Compressor, 5KS150DBJ01 MATSUSHITA ROTARY	A04019020398
	Assy., Panel Base Upper 5WSS16AR	A50014072954	10	Jacket, Compressor 5WSS16/20/25AR	A06074062811
2	Panel, Top(5WSS07/10/15/16/20/25AR)	A01014058153	11	Assy., Flare Valve 1/4"	A50059017482
3	Assy., Panel Right 5WSS16/20/25AR	A50014072600	12	Assy., Flare Valve 1/2" R410A	A50059017537
4	Assy., Panel Left 5WSS16/20/25AR	A50014072596	13	Assy., 4 Way Valve (5WSS16AR)	A50024072957
5	Panel, Service 5WSS16/20/25AR	A01014072604	14	Assy., Cap Tube (5WSS16AR)	A50024073015
6	Bracket, Hanging (5WSS07-60AR)	A01014058923	15	Assy., Valve Plate (Weld Nut)	A50014073987
7	Cover, Control Box 5WSS10/15/16AR	A01014074008			

Parts not in Diagram

No	Description	Part No
1	Capacitor, F 30µF 440Vac	A04024012931
2	Press Switch, 600psi N/C Export Nangtong	A04104061879
3	Tube, Water Inlet (5WSS16AR)	A02014072965
4	Tube, Water Outlet (5WSS16AR)	A02014072967

Model: M5WSS 020/025AR

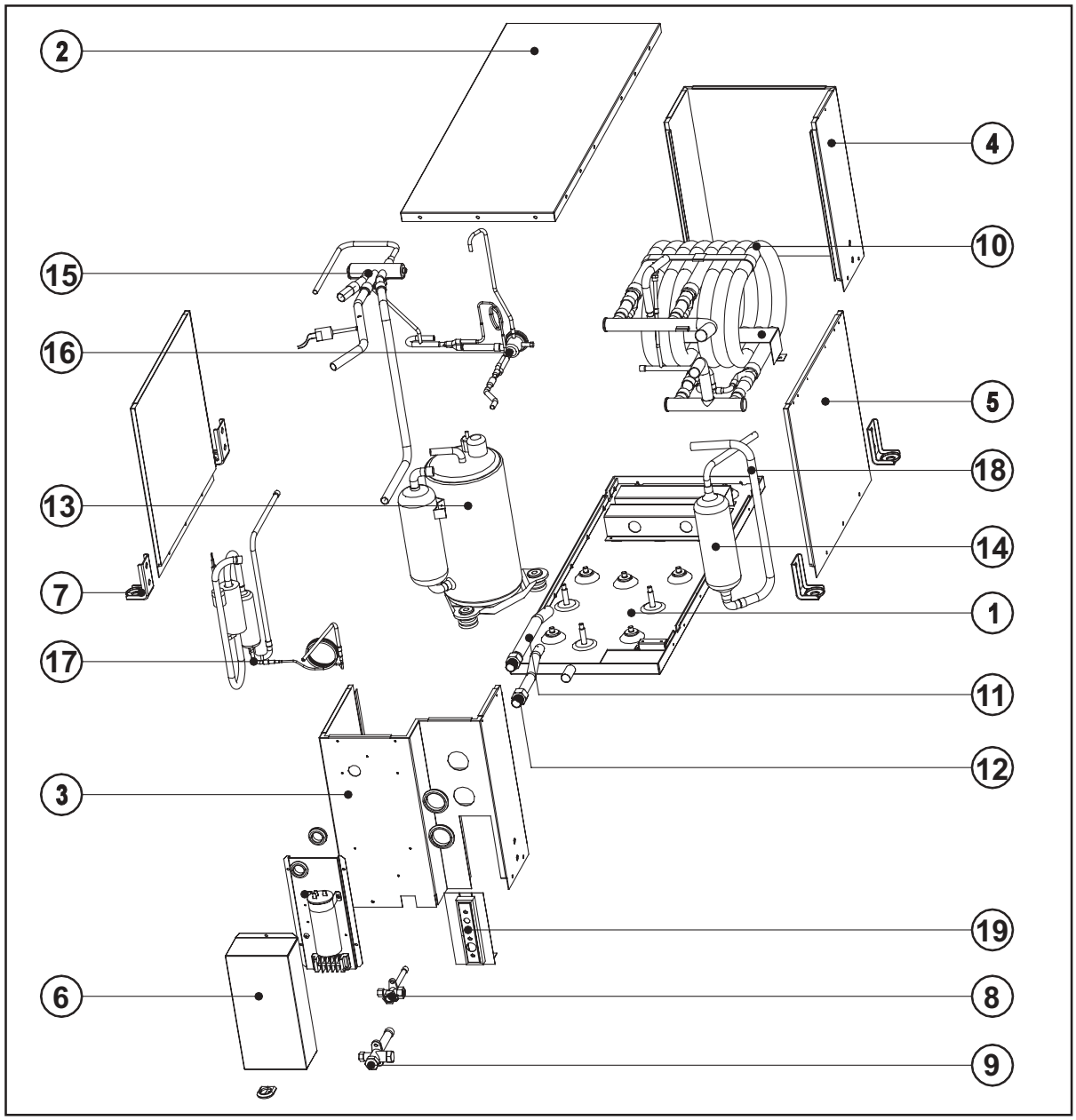


No	Description	Part No	No	Description	Part No
1	Assy., Base Pan		10	Jacket, Compressor 5WSS16/20/25AR	A06074062811
	Assy., Panel Base Lower 5WSS20/25AR	A50014072591	11	Assy., Flare Valve 1/4"(5WSS20/25AR)	A50059017482
	Assy., Panel Base Upper 5WSS20/25AR	A50014072592	12	Assy., Flare Valve 1/2" R410A(5WSS20AR)	A50059017537
2	Panel, Top(5WSS07/10/15/16/20/25AR)	A01014058153		Assy., Flare Valve 5/8" R410A(5WSS25AR)	A50059017538
3	Assy., Panel Right 5WSS16/20/25AR	A50014072600	13	Assy., 4 Way Valve (5WSS20/25AR)	A50024072584
4	Assy., Panel Left 5WSS16/20/25AR	A50014072596	14	Assy., Cap Tube	
5	Panel, Service 5WSS16/20/25AR	A01014072604		Assy., Cap Tube (5WSS20AR)	A50024064414
6	Bracket, Hanging (5WSS07-60AR)	A01014058923		Assy., Cap Tube (5WSS25AR)	A50024074915
7	Cover, Control Box (5WSS20/25AR)	A01014064264	15	Assy., Valve Plate (Weld Nut)	A50014073987
8	Assy., Heat Exchanger 5WSS20/25AR	A50024072579			
9	Compressor				
	Compressor, 5KS205DAD01 MATSUSHITA(5WSS20AR)	A04019018172			
	Compressor, 5KS225DAH01 MATSUSHITA(5WSS25AR)	A04019022586			

Parts not in Diagram

No	Description	Part No
1	Capacitor, F 50µF 440Vac	A04029009656
2	Press Switch, 600psi N/C Export Nangtong	A04104061879
3	Tube, Water Inlet (5WSS20/25AR)	A02014072583
4	Tube, Water Outlet (5WSS20/25AR)	A02014072582

Model : M5WSS 030AR

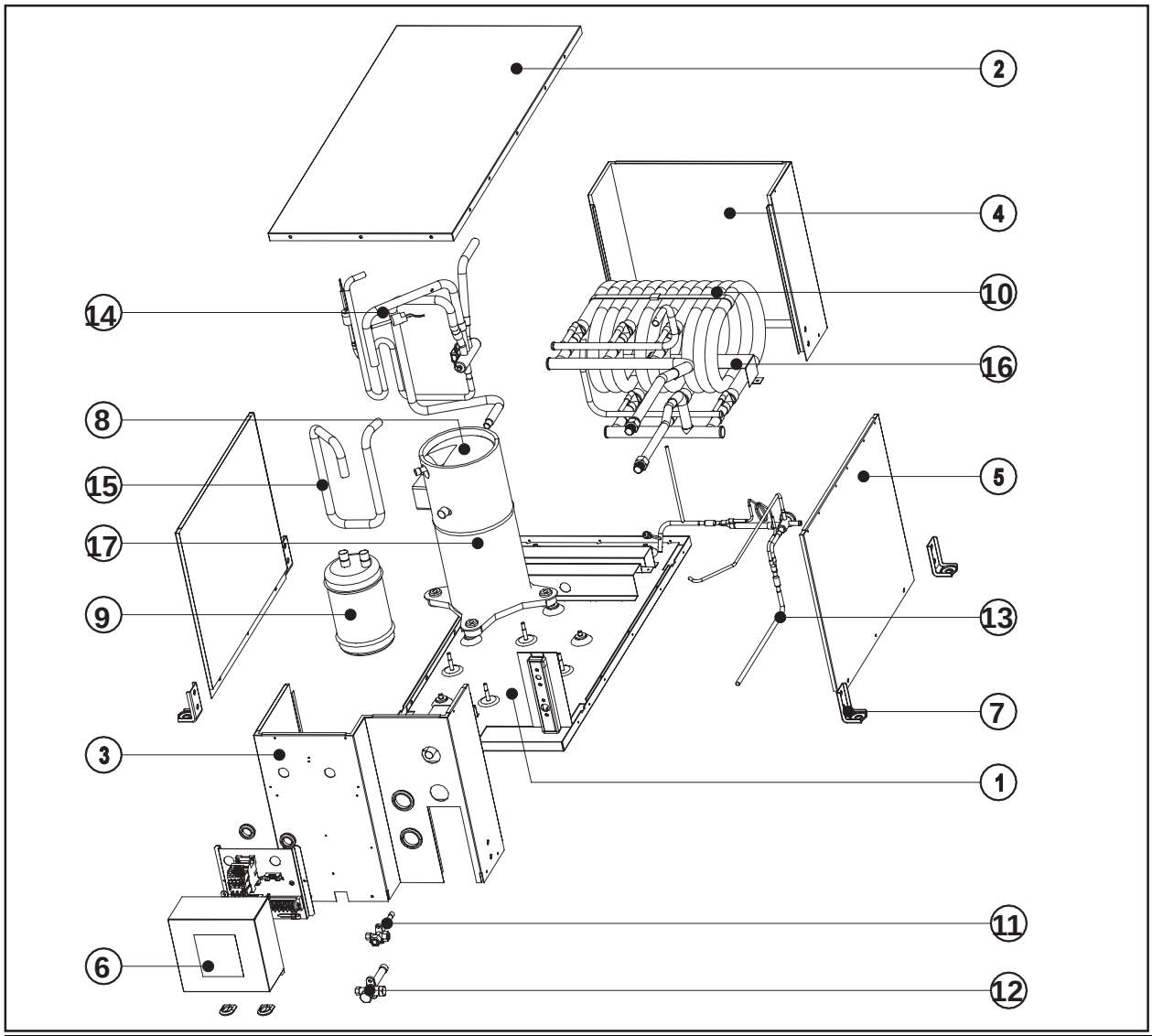


No	Description	Part No	No	Description	Part No
1	Assy., Lower Panel Base 5WSS30AR	A50014074020	10	Assy., Heat Exchanger Main 5WSS30AR	A50024068573
	Assy., Upper Panel Base 5WSS30AR	A50014074022	11	Assy., Tube Header Water Outlet	A50024074276
2	Panel, Top(5WSS30AR)	A01014068627	12	Assy., Tube Header Water Inlet 5WSS30AR	A50024074277
3	Assy., Panel Left 5WSS30AR	A50014068616	13	Compressor, 5JS315DAH01 MATSUSHITA	A04019021931
4	Assy., Panel Right 5WSS30AR	A50014068620	14	Accumulator, DIA70.2xOD16xt1.2	A02114066381
5	Panel, Service 5WSS30AR	A01014068624	15	Assy., 4 Way Valve	A50024068562
6	Assy., Cover Control Box (5WSS30AR)	A50084075188	16	Assy., TXV 5WSS30AR	A50024068567
7	Assy., Hanging Bracket	A50014075673	17	Assy., Oil Separator	A50024068709
8	Assy., Flare Valve 3/8"	A50059017536	18	Tube, Compressor Suction to Acc. Out	A02014068571
9	Assy., Flare Valve Brass 5/8" R410A	A50059020805	19	Assy., Valve Plate (Weld Nut)	A50014068630

Parts not in Diagram

No	Description	Part No
1	Capacitor, F 45µF 440Vac	A04024031242
2	Press Switch, 600psi N/C Export Nangtong	A04104061879

Model : M5WSS 040/050/060AR

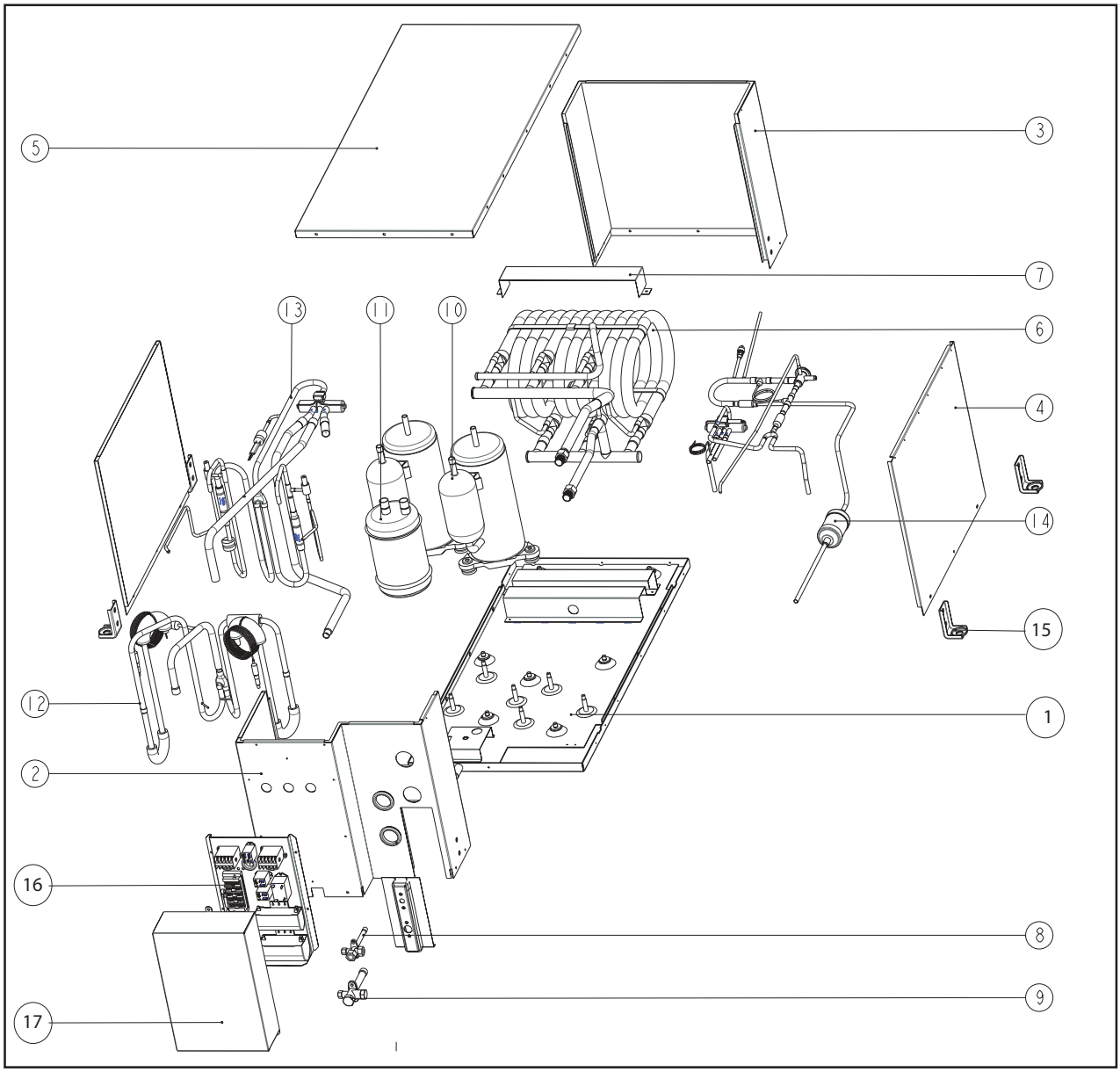


No	Description	Part No	No	Description	Part No
1	Assy., Base Pan		10	Assy., Heat Exchanger	
	Assy., Panel Base Lower 5WSS40AR	A50014074071		Assy., Heat Exchanger 5WST/WSS40AR	A50024074076
	Assy., Panel Base Lower 5WSS50/60AR	A50014074227		Assy., Heat Exchanger 5WST/WSS50/60AR	A50024074233
	Assy., Panel Base Upper 5WSS40AR	A50014074073	11	Assy., Flare Valve 3/8" (5WSS40/50/60AR)	A50059017536
	Assy., Panel Base Upper 5WSS50/60AR	A50014074229	12	Assy., Flare Valve Brass 5/8" R410A (5WSS40/50AR)	A50059020805
2	Panel, Top			Assy., Flare Valve 3/4" W/FLANGE R410A (5WSS60AR)	A50059022642
	Panel, Top(5WST/WSS40AR)	A01014065654	13	Assembly, TXV	
	Panel, Top(5WST/WSS50/60AR)	A01014067224		Assembly, TXV 5WSS40AR	A50024066599
3	Assy., Panel Left			Assembly, TXV 5WSS50AR	A50024067296
	Assy., Panel Left 5WST/WSS40AR	A50014073226		Assembly, TXV 5WSS60AR	A50024067240
	Assy., Panel Left 5WST/WSS50/60AR	A50014073588	14	Assy., 4 Way Valve	
4	Assy., Panel Right			Assy., 4 Way Valve (5WSS40AR)	A50024065593
	Assy., Panel Right 5WST/WSS40AR	A50014073230		Assy., 4 Way Valve (5WSS50AR)	A50024067298
	Assy., Panel Right 5WST/WSS50/60AR	A50014073592		Assy., 4 Way Valve (5WSS60AR)	A50024074913
5	Panel, Service		15	Tube, Compressor Suction to Acc. Out	
	Panel, Service 5WST/WSS40AR	A01014073234		Tube, Compressor Suction to Acc. Out 5WSS40AR	A02014065588
	Panel, Service 5WST/WSS50/60AR	A01014073596		Tube, Compressor Suction to Acc. Out 5WSS50/60AR	A02014067250
6	Assy., Control Box Cover 5WSS40/50/60AR	A50084074902	16	Clamp, Heat Exchanger	
7	Assy., Hanging Bracket	A50014075673		Clamp, Heat Exchanger 5WST/WSS40AR	A01014073237
8	Compressor			Clamp, Heat Exchanger 5WST/WSS50/60AR	A01014073601
	Compressor, Assy ZP41K3E-TFD-593 COPELAND (5WSS40AR)	A50049022882	17	Jacket, Compressor	
	Compressor, Assy ZP54K3E-TFD-522 COPELAND (5WSS50AR)	A50049022880		Jacket, Compressor 5WST/WSS40AR	A06074076936
	Compressor, Assy ZP57K3E-TFD-522 COPELAND (5WSS60AR)	A50049022878		Jacket, Compressor 5WST/WSS50/60AR	A06074076940
9	Accumulator, PA5083-9-6C Parker	A02114013198			

Parts not in Diagram

No	Description	Part No
1	Assy., Valve Plate Weld Nut	
	Assy., Valve Plate Weld Nut 5WST/WSS40/50AR	A50014073302
	Assy., Valve Plate Weld Nut 5WST/WSS60AR	A50014074665
2	Mag. Contactor CI 12 (037H043132)	A04034020118
3	Contactor Aux, NC 037H0112 Danfoss	A04034019923
4	Press Switch, 600psi N/C Export Nangtong	A04104061879
5	Press Switch, 7psi N/C Export Nangtong	A04109015400

Model : M5WST 040AR

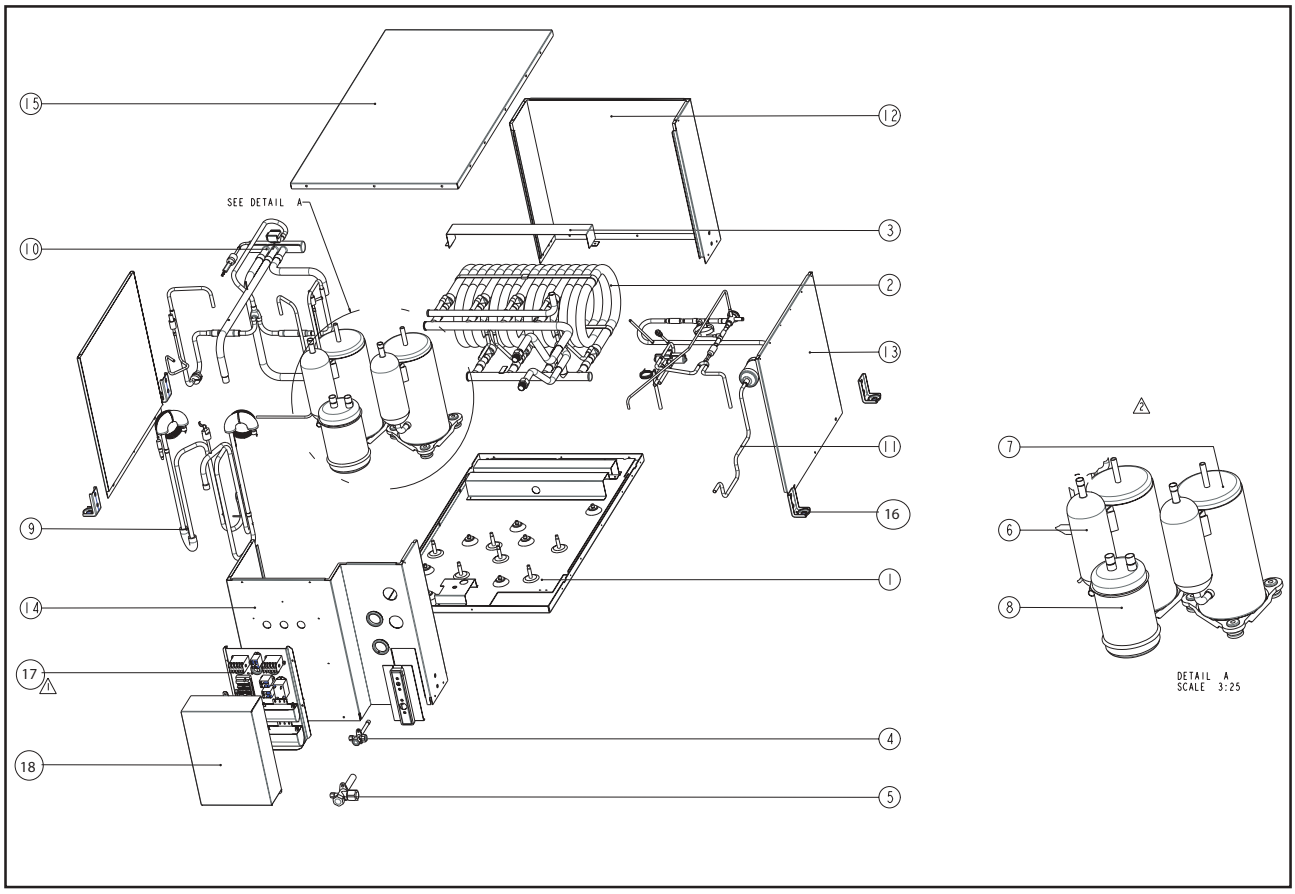


No	Description	Part No	No	Description	Part No
1	Assy., Base Pan		9	Assy., Flare Valve Brass 5/8" R410A (EXP) FL	A50059020805
	Assy., Panel Base Lower	A50014073220	10	Compressor, 5KS225DAJ01 MATSUSHITA	A04019021176
	Assy., Panel Base Upper	A50014073222	11	Accumulator, PA5083-9-6C	A02114013198
2	Assy., Panel Left	A50014083533	12	Assy., Tube Acc. To Suction	A50024073320
3	Assy., Panel Right	A50014073230	13	Valve, Rev 4 Way SHF11H-36D1 Sanhua R410A	A05019019860
4	Panel, Service	A01014073234	14	Valve, TXV 068U1973(3.4Tons, ORI.7) Danfoss	A05019020252
5	Panel, Top	A01014065654	15	Assy., Hanging Bracket(M50014523342)	A50014075673
6	Assy., Heat Exchanger Main	A50024078068	16	Assy., Control Box	A50044076508
7	Clamp, Heat Exchanger	A01014073237	17	Assy., Control Box Cover	A50084083684
8	Assy., Flare Valve 3/8"	A50059017536			

Parts not in Diagram

No	Description	Part No
1	Defrost Thermistor(6mm 10k with ins)	A50134039416
2	Clip, Coil Sensor(6mm)	A07054021183
3	Valve, Solenoid VPV-202DQ50 Saginom R410	A05019024856
4	Capacitor, F50.0µF 440Vac	A04029009656
5	Press Switch, 600psi N/C Export Nangtong	A04104061879
6	Press Switch, 7psi N/C Export Nangtong	A04109015400
7	Filter Drier, DMB 084s Biflow Danfoss	A02169018760
8	Valve, Rev 4 Way SHF-4H-230(RK) Shanhua	A05019016936

Model : M5WST 050/060 AR

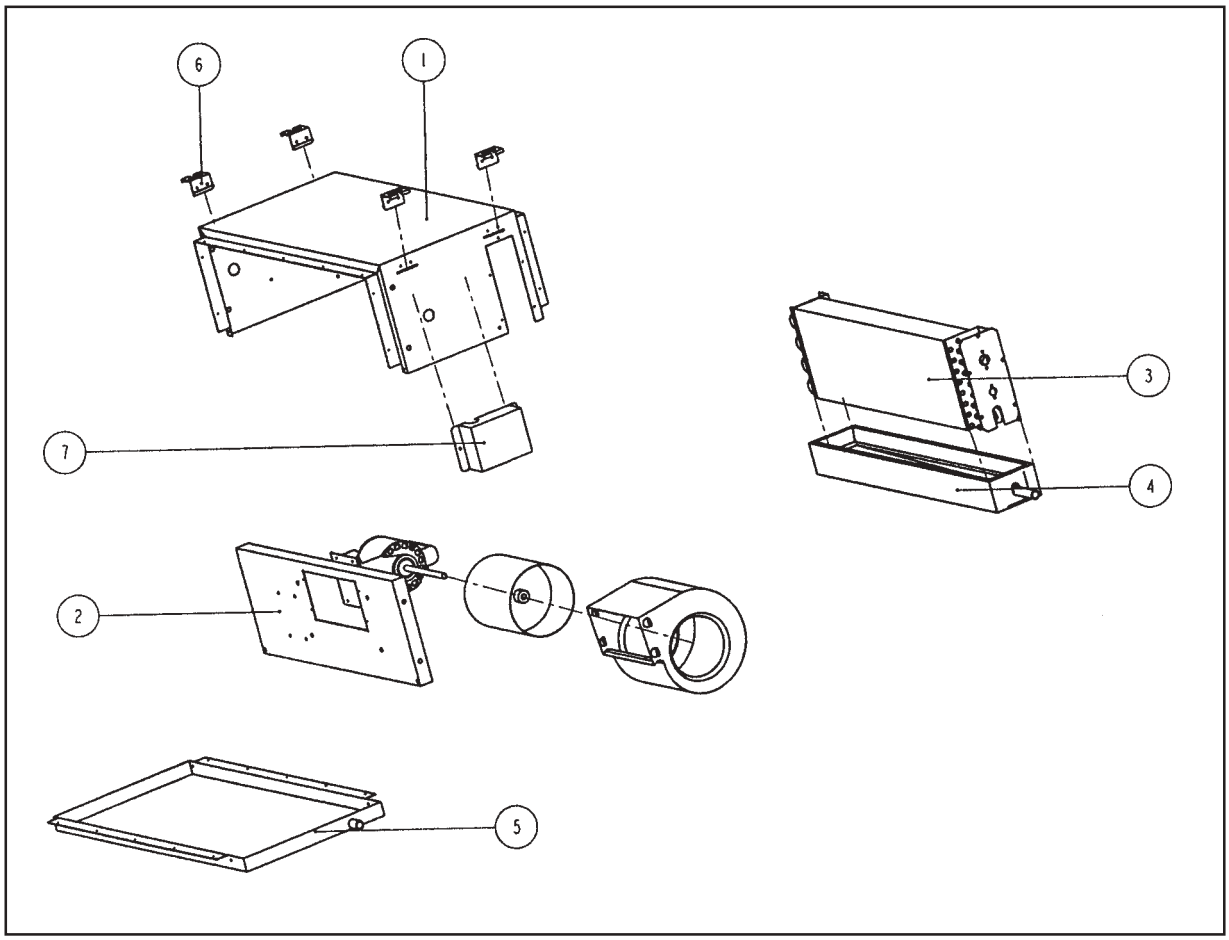


No	Description	Part No	No	Description	Part No
1	Assy., Base Pan		9	Assy., Tube Acc. Suction	A50024073861
	Assy., Panel Base Lower M5WST050/060AR	A50014073847	10	Valve, REV 4 Way V4SHF20A-47 Sanhua R410A	A05019019861
	Assy., Panel Base Upper M5WST050AR	A50014073585	11	Valve, TXV 068U1974 5.0 Tonnage Danfoss	A05019022753
	Assy., Panel Base Upper M5WST060AR	A50014073849	12	Assy., Panel Right	A50014073592
2	Assy., Heat Exchanger Main	A50024077836	13	Panel, Service	A01014073596
3	Clamp., Heat Exchanger	A01014073601	14	Assy., Panel Left	A50014083534
4	Assy., Flare Valve 3/8"	A50059017536	15	Panel, Top	A01014067224
5	Assy., FLare Valve 3/4" W/Flange R410	A50059022642	16	Assy., Hanging Bracket(M50014523342)	A50014075673
6	Compressor, 5JS315DAJ01 MATSUSHITA		17	Assy., Control Box	
	(M5WST 060 AR)	A04019021178		M5WST050AR	A50044083685
7	Compressor, 5JS290DAB01 MATSUSHITA			M5WST060AR	A50044083686
	(M5WST 050/060 AR)	A04019021172	18	Assy., Control Box Cover	A50084083684
8	Accumulator, PA5083-9-6C	A02114013198			

Parts not in Diagram

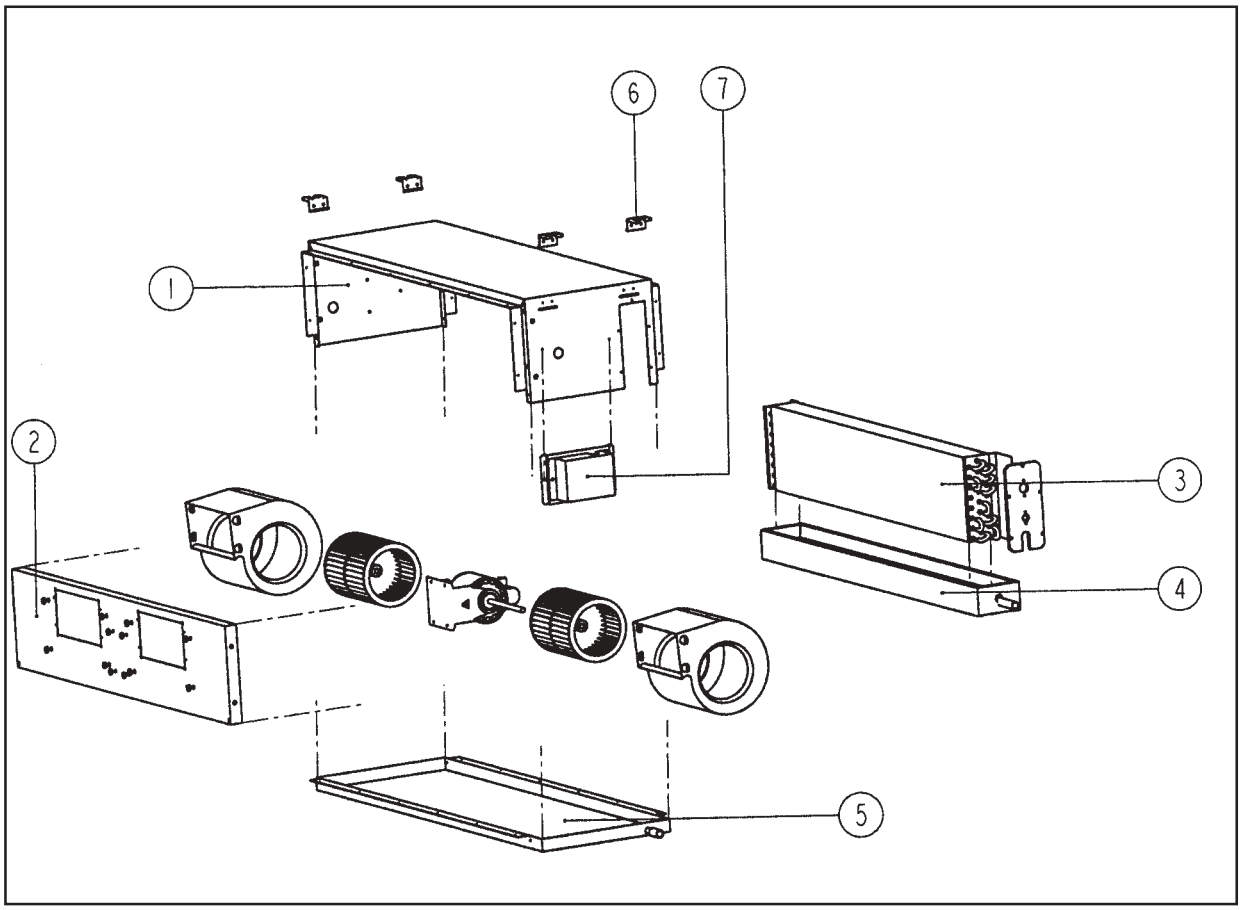
No	Description	Part No
1	Defrost Thermistor(6mm 10k with ins)	A50134039416
2	Clip, Coil Sensor(6mm)	A07054021183
3	Valve, Solenoid VPV-202DQ50 Saginom R410	A05019024856
4	Capacitor	
	Capacitor, F60.0µF 440Vac (M5WST050AR)	A04029017910
	Capacitor, F45.0µF 440Vac (M5WST060AR)	A04024031242
5	Press Switch, 600psi N/C Export Nangtong	A04104061879
6	Press Switch, 7psi N/C Export Nangtong	A04109015400
7	Filter Drier, DMB 084s Biflow Danfoss	A02169018760
8	Valve, Rev 4 Way SHF-4H-230(RK) Shanhua	A05019016936

Model : M5CCWS010CR



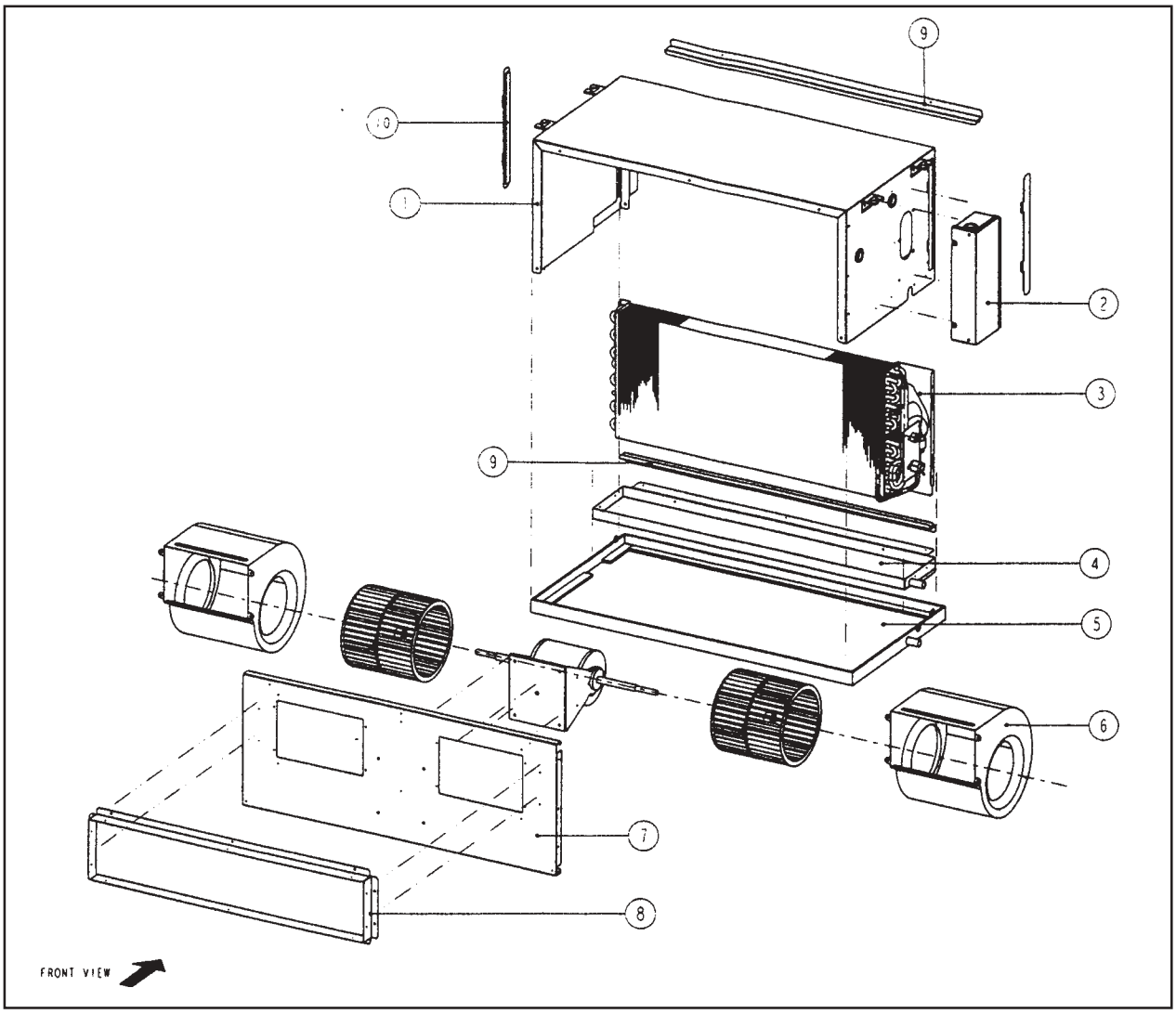
NO.	PART DESCRIPTION
1.	TOP SIDE PANEL
2	FAN DECK
3.	COIL
4.	PRIMARY DRAIN PAN
5.	SECONDARY DRIP PAN
6.	HANGER
7.	CONTROL BOX

Model : M5CCWS015/ 020/ 025CR



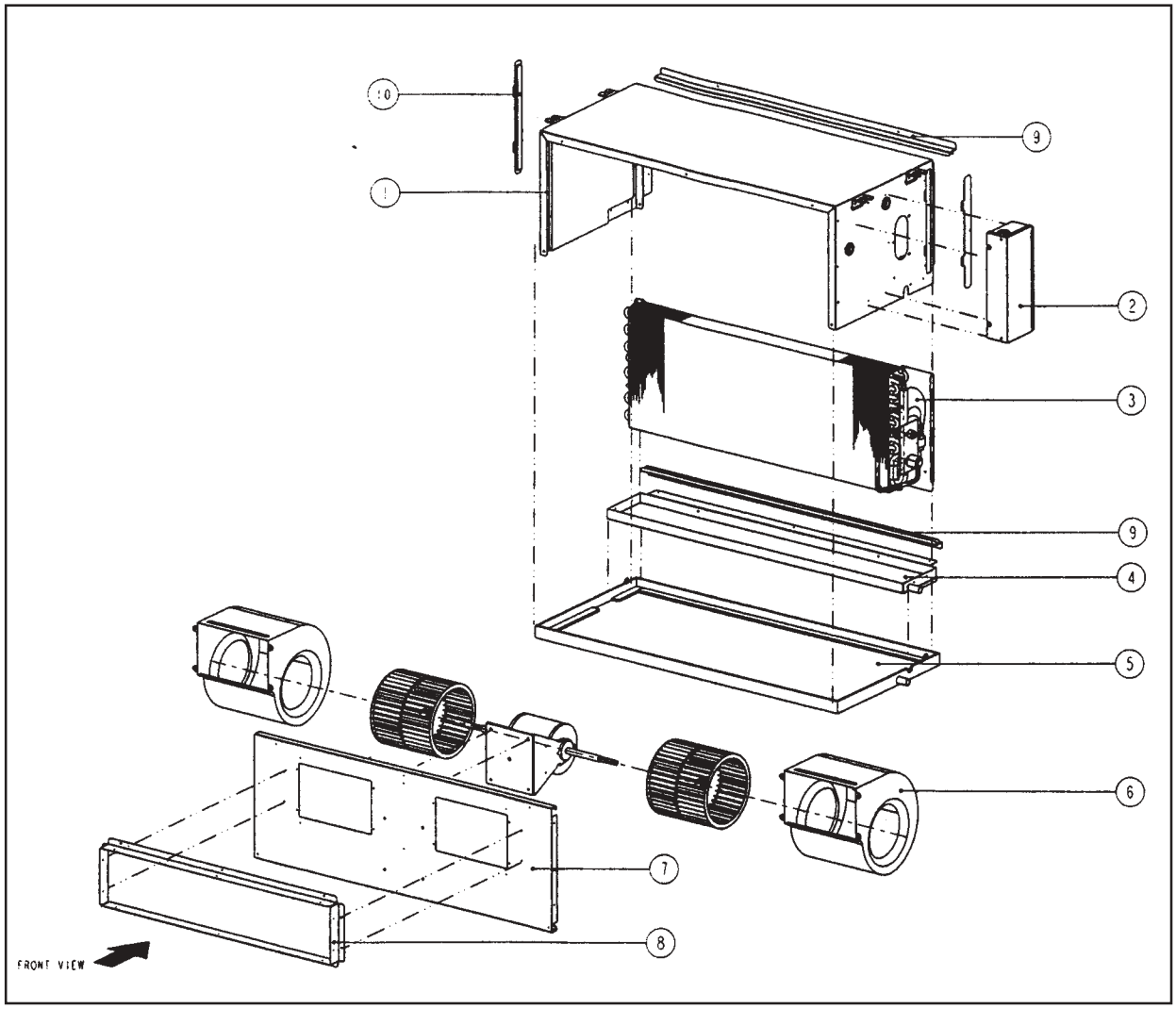
NO.	PART DESCRITION
1.	TOP SIDE PANEL
2	FAN DECK
3.	COIL
4.	PRIMARY DRAIN PAN
5.	SECONDARY DRIP PAN
6.	HANGER
7.	CONTROL BOX

Model : M5CCWS030 CR



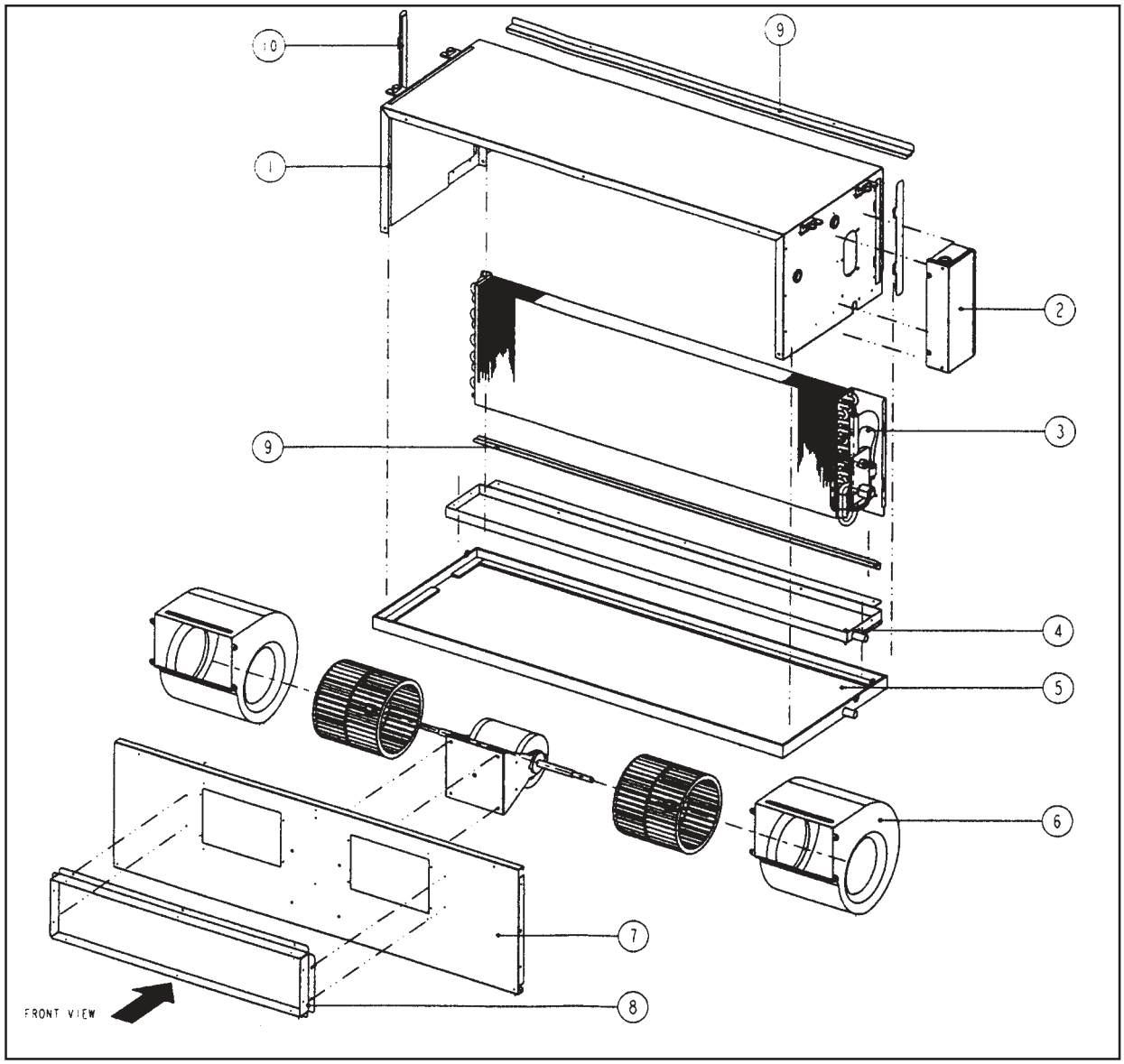
NO.	PART DESCRITION
1.	ASSY. PANEL TOP
2.	ASSY. TERMINAL BOX (U1.4)
3.	ASSY. COIL TUBING
4.	ASSY. DRAIN PAN SMALL
5.	ASSY. DRAIN PAN BIG
6.	ASSY. BLOWER
7.	PANEL BLOWER
8.	FLANGE BLOWER
9.	ASSY., RAIL FILTER
10.	ASSY., COVER FILTER L/R

Model : M5CCWS040CR



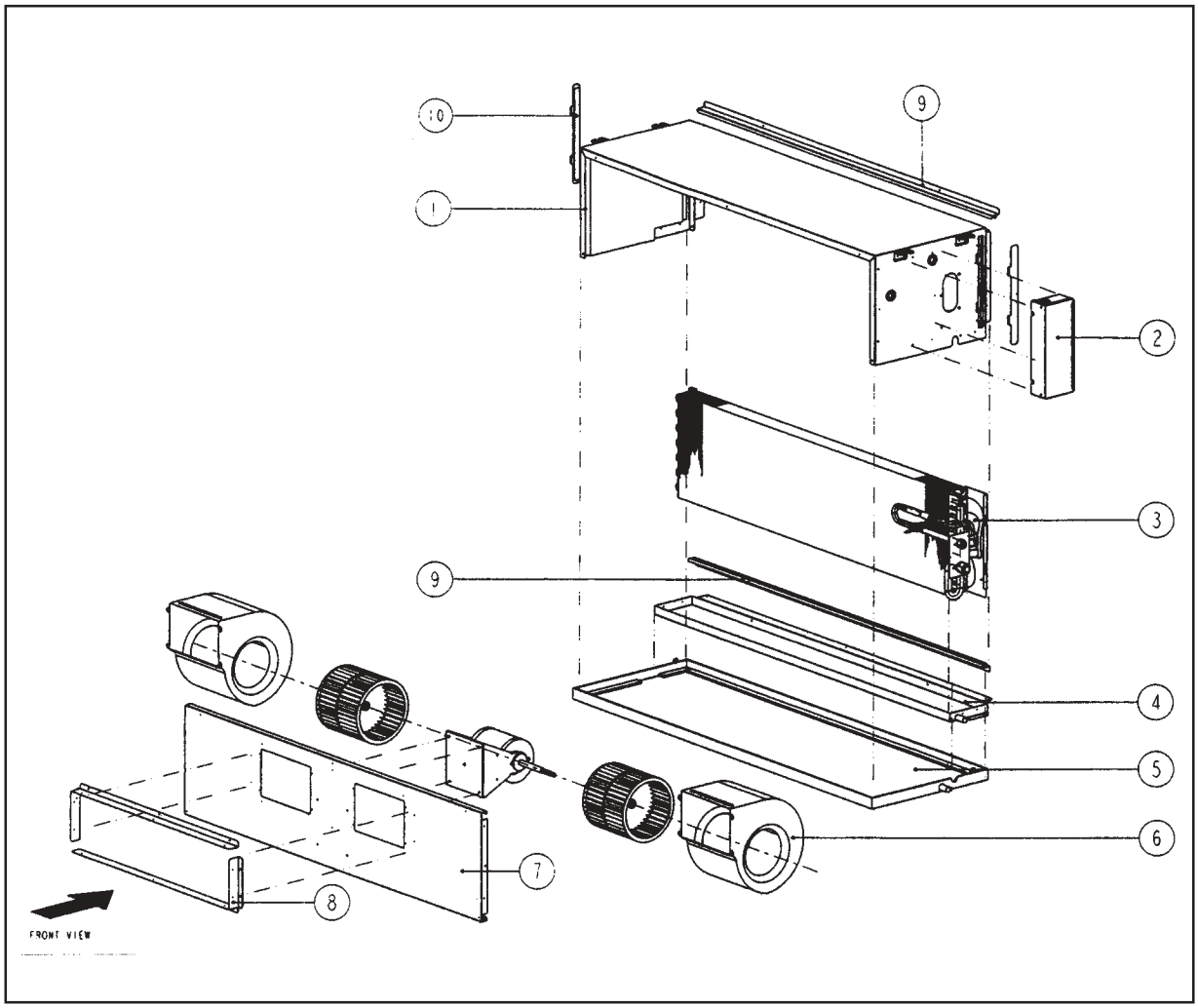
NO.	PART DESCRITION
1.	ASSY. PANEL TOP
2.	ASSY. TERMINAL BOX (U1.4)
3.	ASSY. COIL TUBING
4.	ASSY. DRAIN PAN SMALL
5.	ASSY. DRAIN PAN BIG
6.	ASSY. BLOWER
7.	PANEL BLOWER
8.	FLANGE BLOWER
9.	ASSY., RAIL FILTER
10.	ASSY., COVER FILTER L/R

Model : M5CCWS050CR



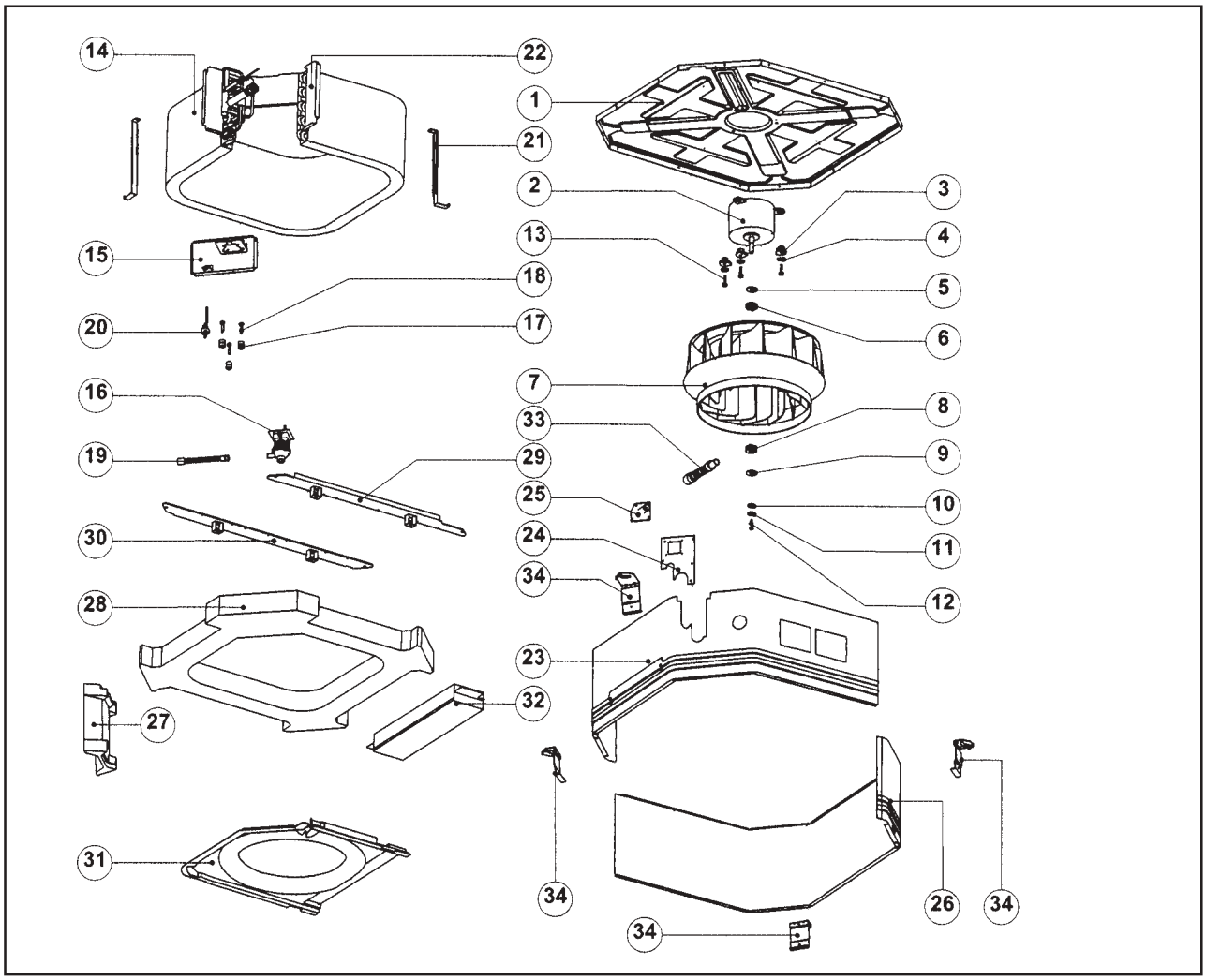
NO.	PART DESCRITION
1.	ASSY. PANEL TOP
2.	ASSY. TERMINAL BOX (U1.4)
3.	ASSY. COIL TUBING
4.	ASSY. DRAIN PAN SMALL
5.	ASSY. DRAIN PAN BIG
6.	ASSY. BLOWER
7.	PANEL BLOWER
8.	FLANGE BLOWER
9.	ASSY., RAIL FILTER
10.	ASSY., COVER FILTER L/R

Model : M5CCWS060CR



NO.	PART DESCRITION
1.	ASSY. PANEL TOP
2.	ASSY. TERMINAL BOX
3.	ASSY. COIL TUBING
4.	ASSY. DRAIN PAN SMALL
5.	ASSY. DRAIN PAN BIG
6.	ASSY. BLOWER
7.	PANEL BLOWER
8.	FLANGE BLOWER
9.	ASSY., RAIL FILTER
10.	ASSY., COVER FILTER L/R

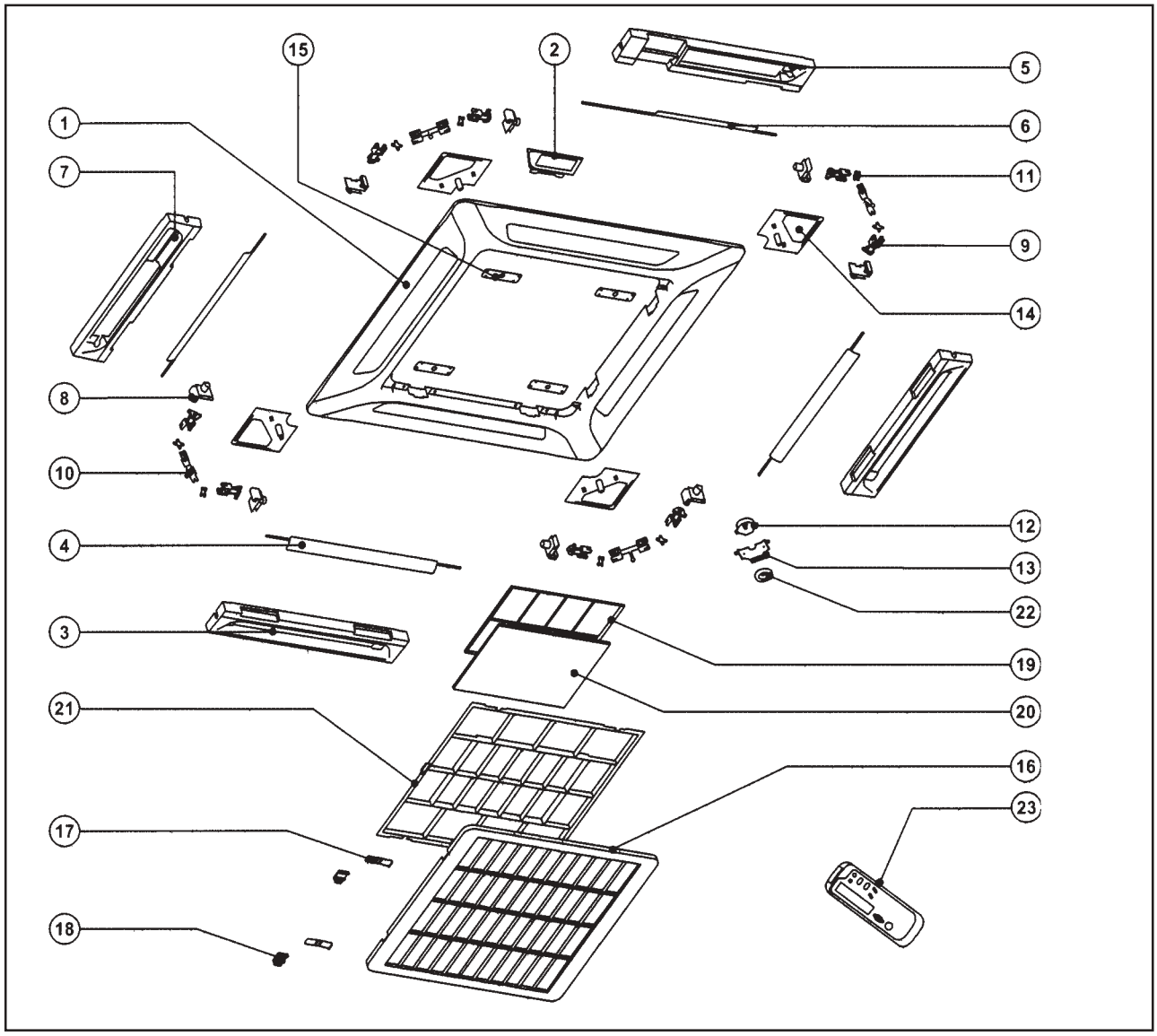
Model : M5CKWS - AR



NO.	PARTS DESCRIPTION	NO.	PARTS DESCRIPTION
1	BASE PAN	18	HEXAGON BOLT
2	FAN MOTOR	19	DRAIN HOSE
3	FAN MOTOR BUSH	20	LEVEL SWITCH
4	PLAIN WASHER	21	COIL SUPPORT
5	FAN MOTOR WASHER	22	PARTITION
6	BUTTON COUPLING	23	SIDE PANEL FRONT
7	TURBO FAN	24	VALVE PLATE
8	TOP COUPLING	25	DRAIN CONNECTOR
9	FLAT WASHER	26	SIDE PANEL BACK
10	PLAIN WASHER	27	AIR GUIDE
11	SPRING WASHER	28	DRAIN PAN
12	HEXAGON BOLT	29	FIX BRACKET FRONT
13	HEXAGON BOLT	30	FIX BRACKET BACK
14	EVAPORATOR COIL	31	FAN COVER
15	DRAIN PUMP BRACKET	32	TERMINAL BOX
16	DRAIN PUMP	33	DRAIN PIPE
17	DRAIN PUMP BUSH	34	HANGER BRACKET A,B & C

Model : M5CKWS - AR

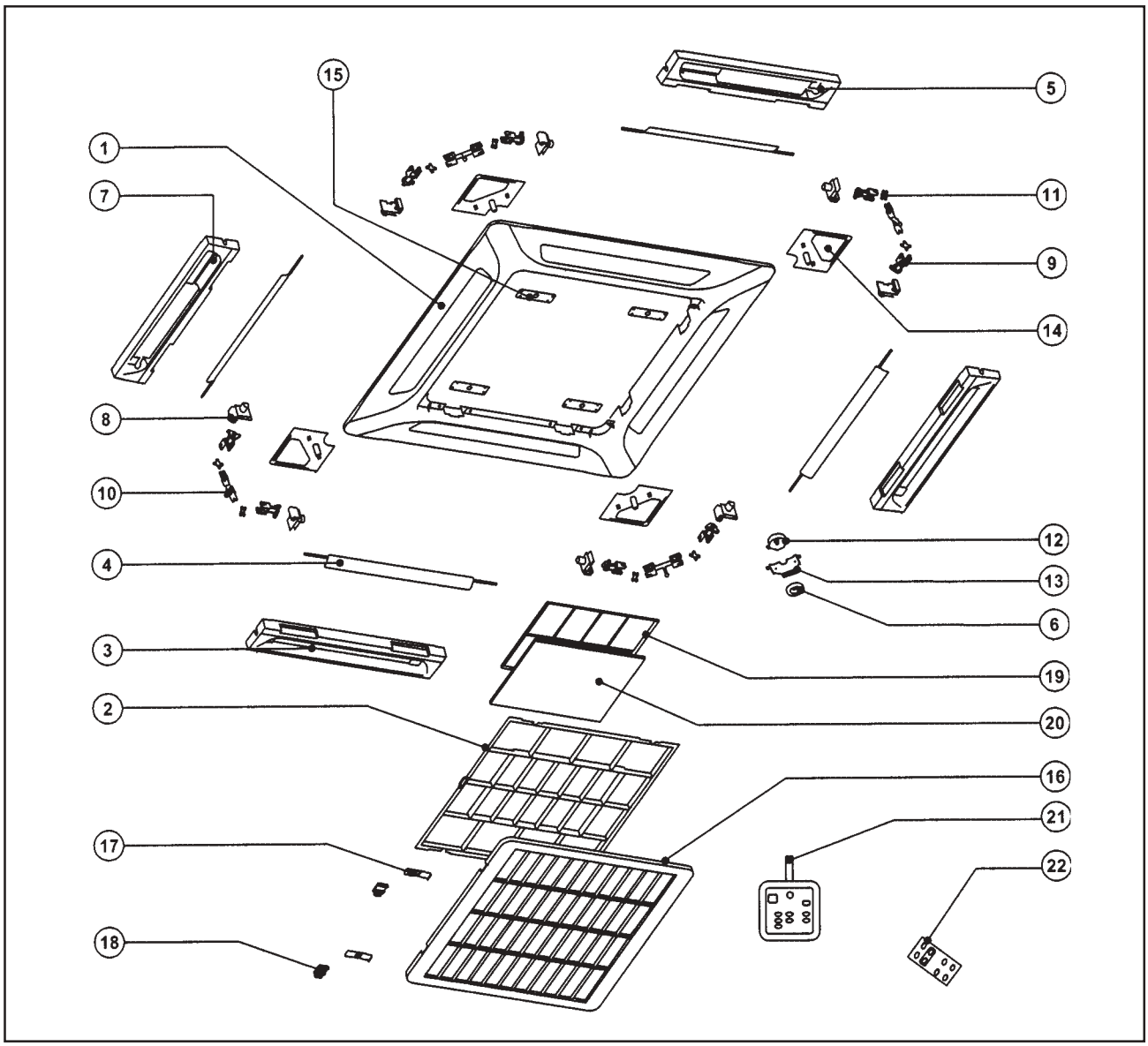
Panel (Wireless Remote Control)



NO	PART DESCRIPTION	NO.	PART DESCRITION
1	FRONT PANEL	13	SWING MOTOR BRACKET
2	RECEIVER BRACKET	14	PANEL COVER
3	DISCHARGE HOUSING A	15	FIX PLATE
4	METAL LOUVER A	16	AIR INTAKE GRILLE
5	DISCHARGE HOUSING B	17	GRILLE LOCK
6	METAL LOUVER B	18	GRILLE LOCK BRACKET
7	DISCHARGE HOUSING D	19	IONIZER FILTER FRAME
8	LOUVER BRACKET	20	IONIZER FILTER
9	CRANK SHARF	21	AIR FILTER
10	CRANK CONNECTOR	22	AIR SWING CAP
11	CRANK CROSS	23	REMOTE CONTROL
12	SWING MOTOR		

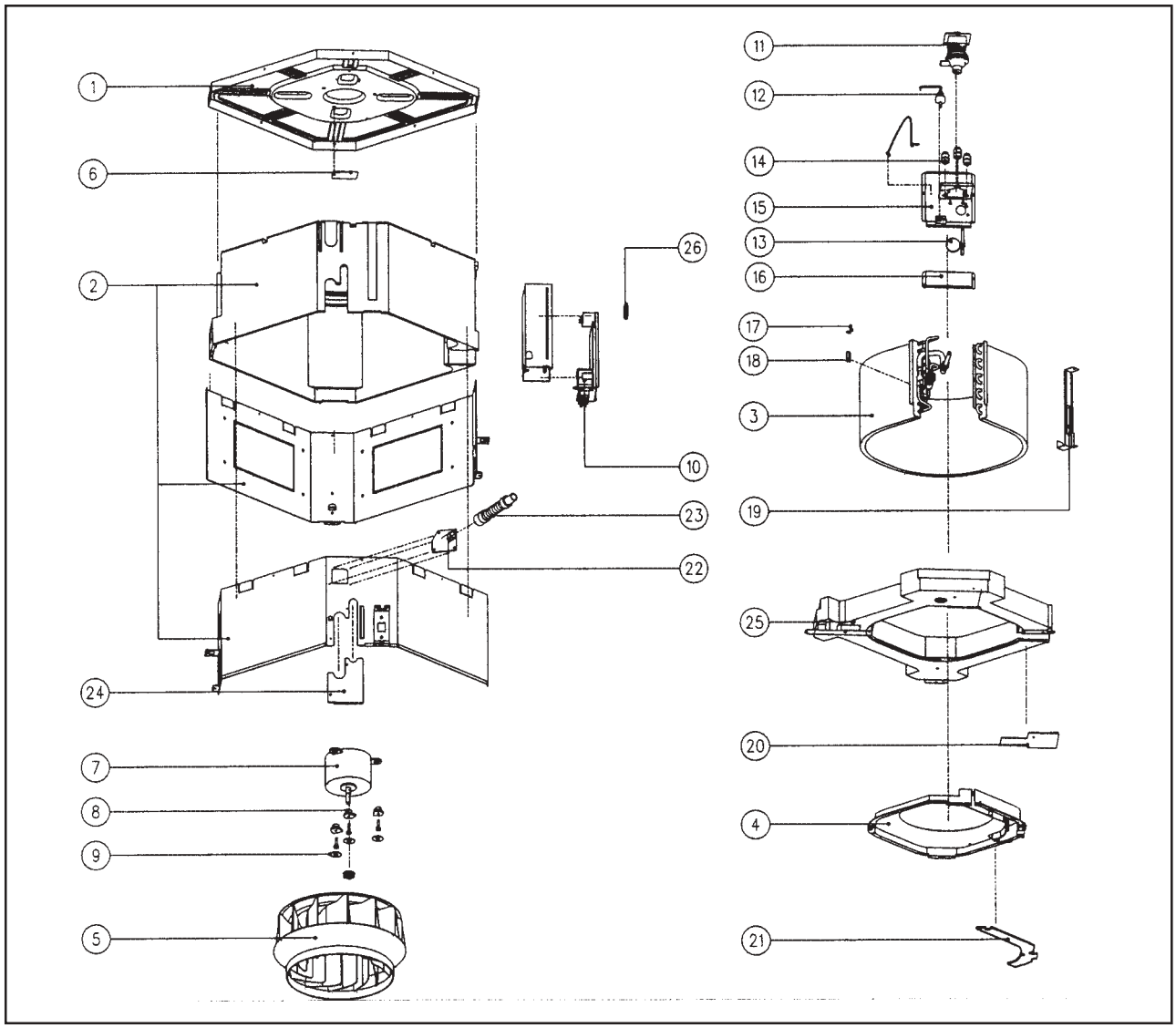
Model : M5CKWS - AR

Panel (Wired Remote Control)



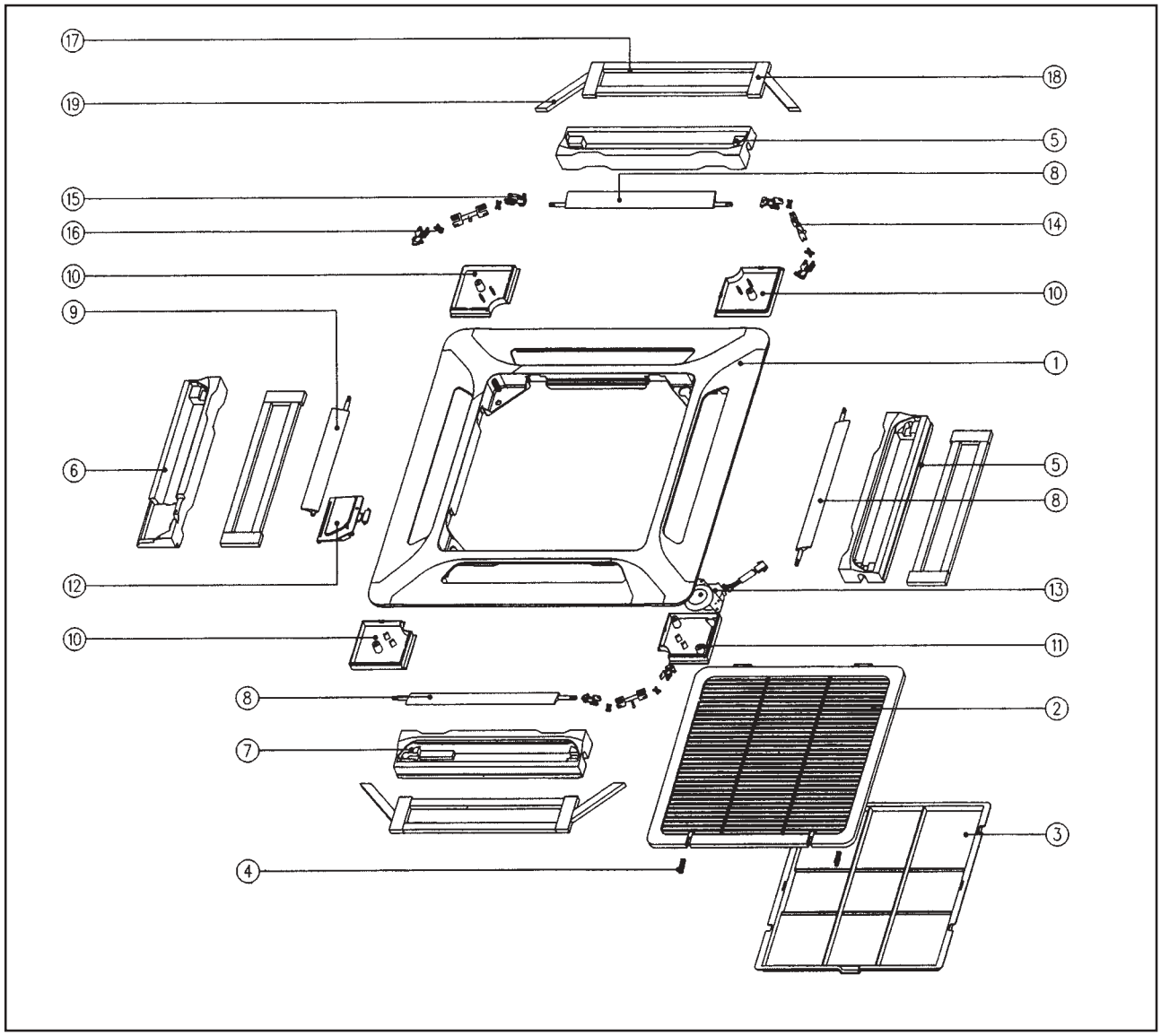
NO	PART DESCRIPTION	NO.	PART DESCRITION
1	FRON PANEL	12	SWING MOTOR
2	AIR FILTER	13	SWING MOTOR BRACKET
3	DISCHARGE HOUSING A	14	PANEL COVER
4	METAL LOUVER A	15	FIX PLATE
5	DISCHARGE HOUSING C	16	AIR INTAKE GRILLE
6	AIR SWING CAP	17	GRILLE LOCK
7	DISCHARGE HOUSING D	18	GRILLE LOCK BRACKET
8	LOUVER BRACKET	19	IONIZER FILTER FRAME
9	CRANK SHARF	20	IONIZER FILTER
10	CRANK CONNECTOR	21	REMOTE CONTROL
11	CRANK CROSS	22	CARD REMOTE CONTROL

Model : M5CKWS 010 / 015 / 020CR



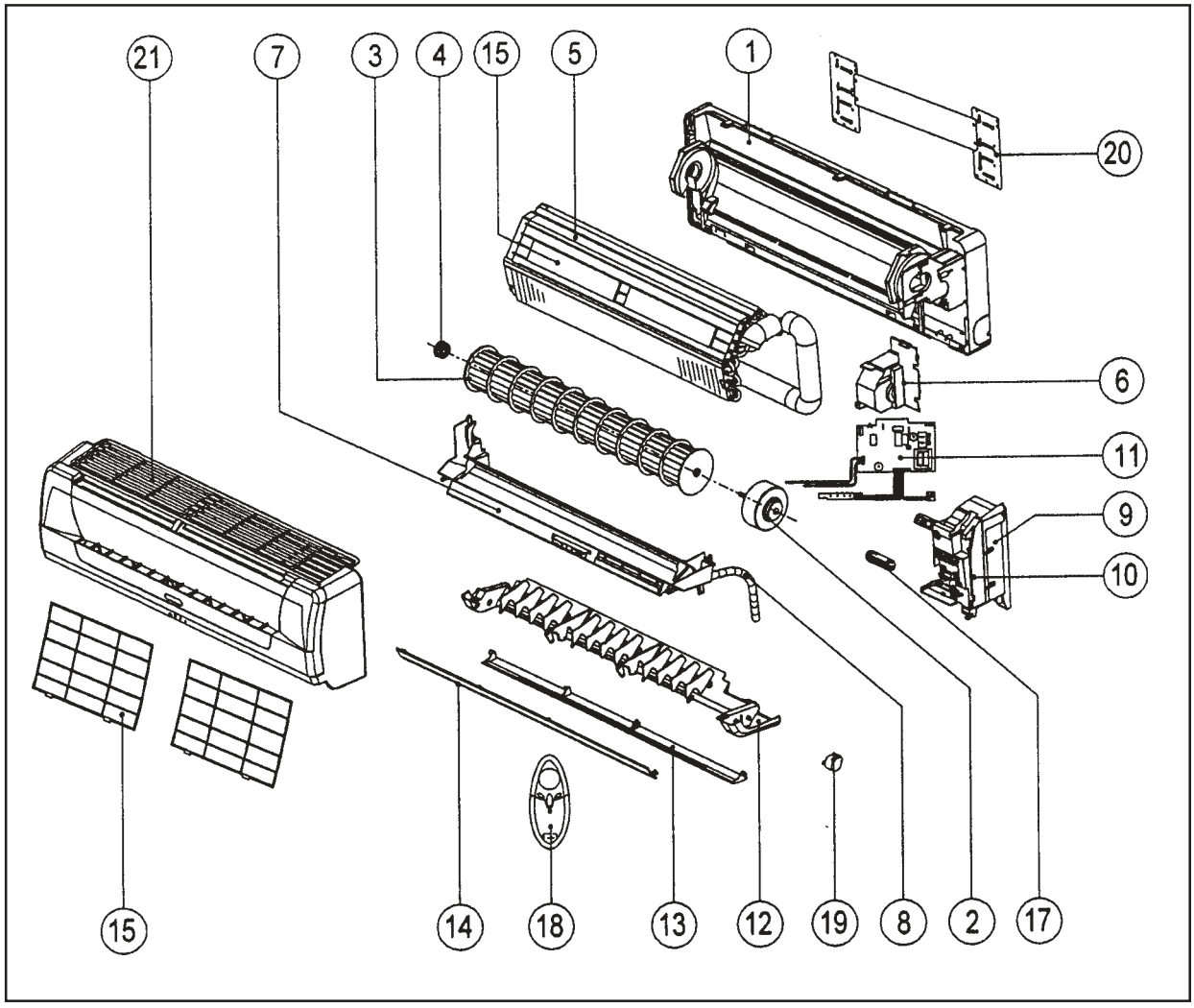
NO	PART DESCRIPTION	NO.	PART DESCRITION
1	ASSY. BASE	14	BUSH, DRAIN PUMP
2	ASSY. CASING	15	ASSY. DRAIN PUMP SUPPORT BUCKET
3	ASSY. COIL	16	ASSY., ENDPLATE SUPPORT
4	COVER, FAN	17	CLIP, COIL SENSOR (6mm)
5	BLOWER WHEEL, TURBO FAN FX330 TU YAMAHA	18	TUBE, COIL SENSOR
6	PLATE, WIRE	19	BRACKET, COIL
7	MOTOR, ACK20C-501 HONG LU	20	COVER, TERMINAL
8	BUSH, FAN MOTOR	21	COVER, WIRE
9	BUSH, FAN MOTOR RING	22	CONNECTOR, DRAIN CK
10	ASSY., CONTROL BOX	23	HOSE, DRAIN CK
11	DRAIN PUMP PJV-0732	24	ASSY., COVER VALVE
12	LEVEL SWITCH/ FLOAT SWITCH FS-06122A	25	ASSY., DRAIN PAN
13	BUSH, WIRE NRID22XOD 36XT10.0-MODEL CE/SB	26	BUSH, WIRE

Model : M5CKWS 010 / 015 / 020CR
Panel



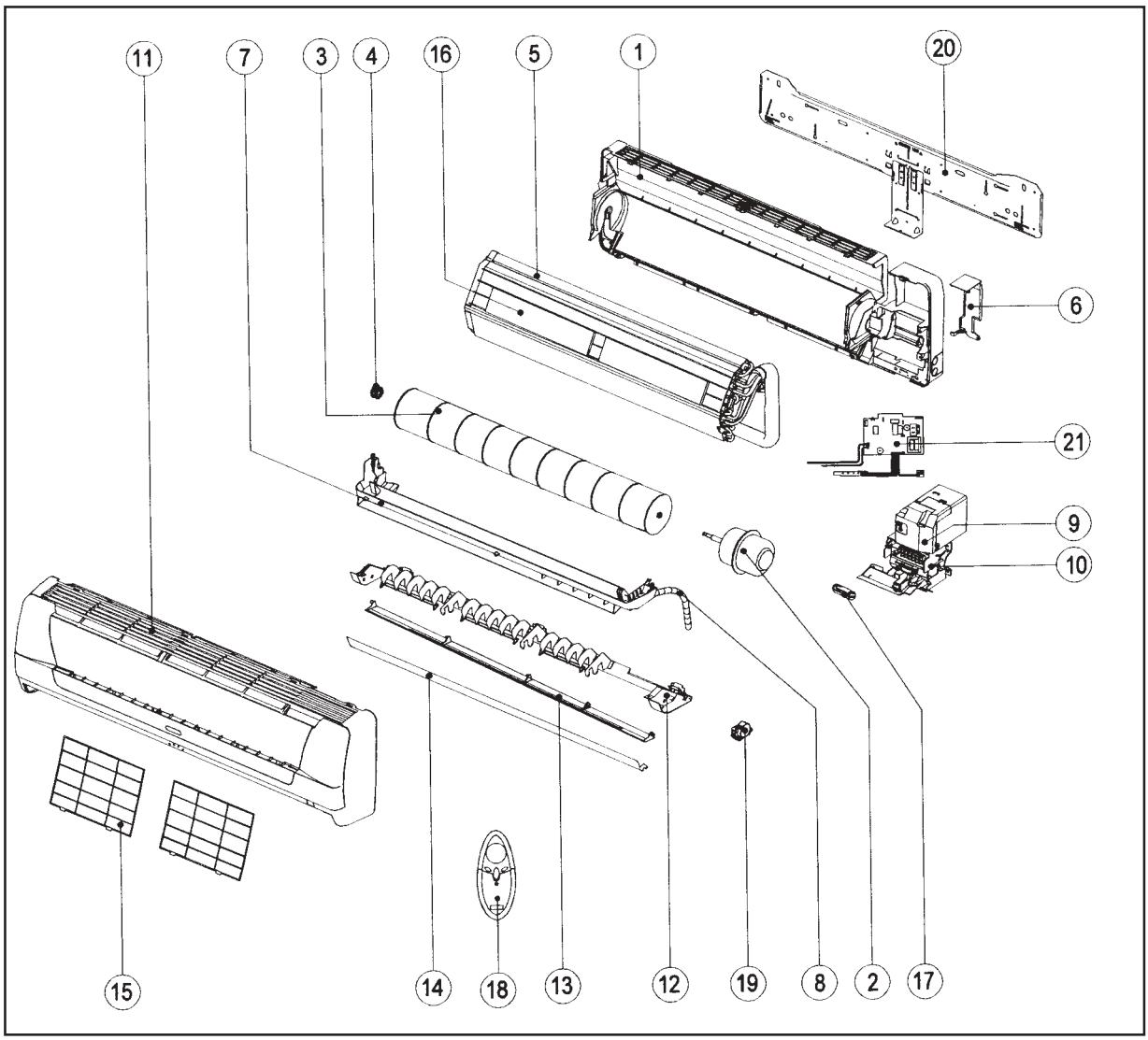
NO	PART DESCRIPTION	NO.	PART DESCRITION
1	FRAME	11	LINKAGE, COVER MOTOR
2	INTAKE GRILLE	12	ASSY, BRACKET RECEIVER (LED/SLM)
3	FILTER	13	AIR SWING MOTOR ASSY
4	GRILLE LOCK	14	CRANK CONNECTOR
5	DISCHARGE, FOAM	15	LOUVER HOLDER
6	DISCHARGE, FOAM LED	16	CRANK CROSS
7	DISCHARGE, FOAM SHORT	17	INSULATION LONG
8	LOUVER	18	INSULATION SHORT
9	LED LOUVER	19	INSULATION CORNER
10	LINKAGE, COVER		

Model : M5WMWS010 / 015GR



NO.	PART DESCRIPTION	NO.	PART DESCRIPTION
1	CHAISE	13	LOWER LOUVER
2	FAN MOTOR	14	UPPER LOUVER
3	CROSS FLOW FAN	15	SARANET AIR FILTER
4	FAN BUSH	16	TITATIUM OXIDE FILTER
5	COIL ASSEMBLY	17	NEGATIVE IONIZER ASSEMBLY
6	PIPING CLAMP	18	G11 HANSET
7	DRAIN PAN ASSEMBLY	19	AIR SWING MOTOR
8	DRAIN HOSE	20	MOUNTING PLATE ASSEMBLY
9	CONTROL BOX ASSEMBLY	21	FRONT COVER ASSEMBLY
10	CONTROL BOX COVER ASSEMBLY		
11	CONTROL MODULE		
12	AIR DISCHARGE HOUSING		

Model : M5WMWS020 / 025GR



NO.	PART DESCRIPTION	NO.	PART DESCRIPTION
1	CHAISE	13	LOWER LOUVER
2	FAN MOTOR	14	UPPER LOUVER
3	CROSS FLOW FAN	15	SARANET AIR FILTER
4	FAN BUSH	16	TITATIUM OXIDE FILTER
5	COIL ASSEMBLY	17	NEGATIVE IONIZER ASSEMBLY
6	PIPING CLAMP	18	G12 HANSET
7	DRAIN PAN ASSEMBLY	19	AIR SWING MOTOR
8	DRAIN HOSE	20	MOUNTING PLATE ASSEMBLY
9	CONTROL BOX ASSEMBLY	21	CONTROL MODULE
10	CONTROL BOX COVER ASSEMBLY	22	PIPING COVER
11	FRONT COVER ASSEMBLY		
12	AIR DISCHARGE HOUSING		

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